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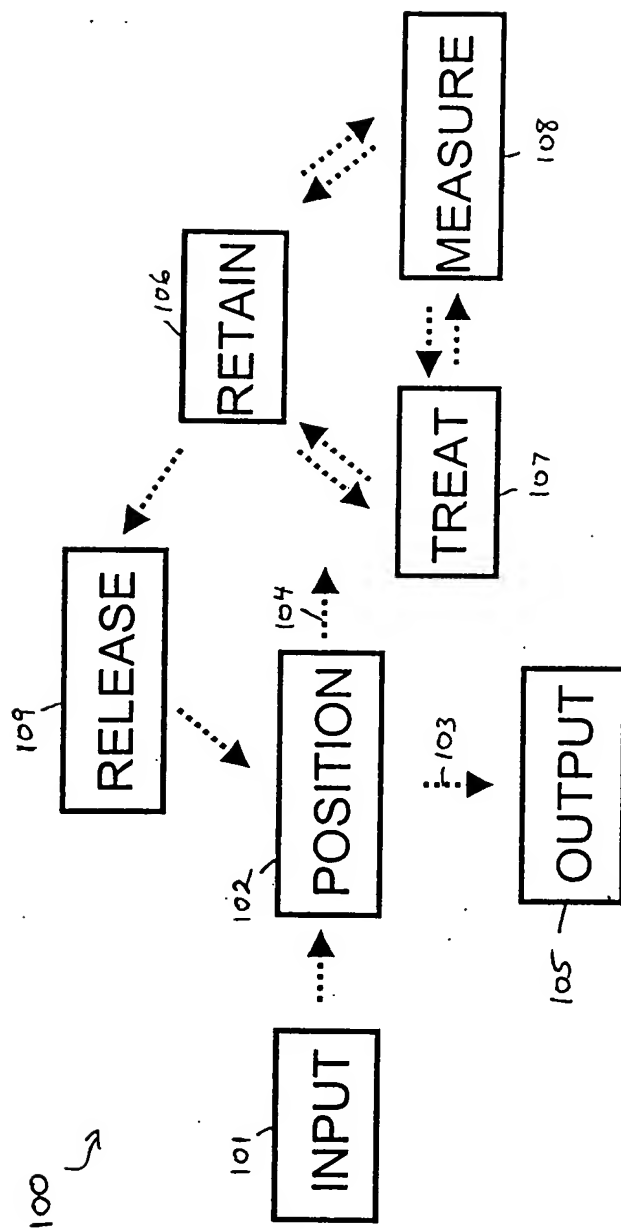
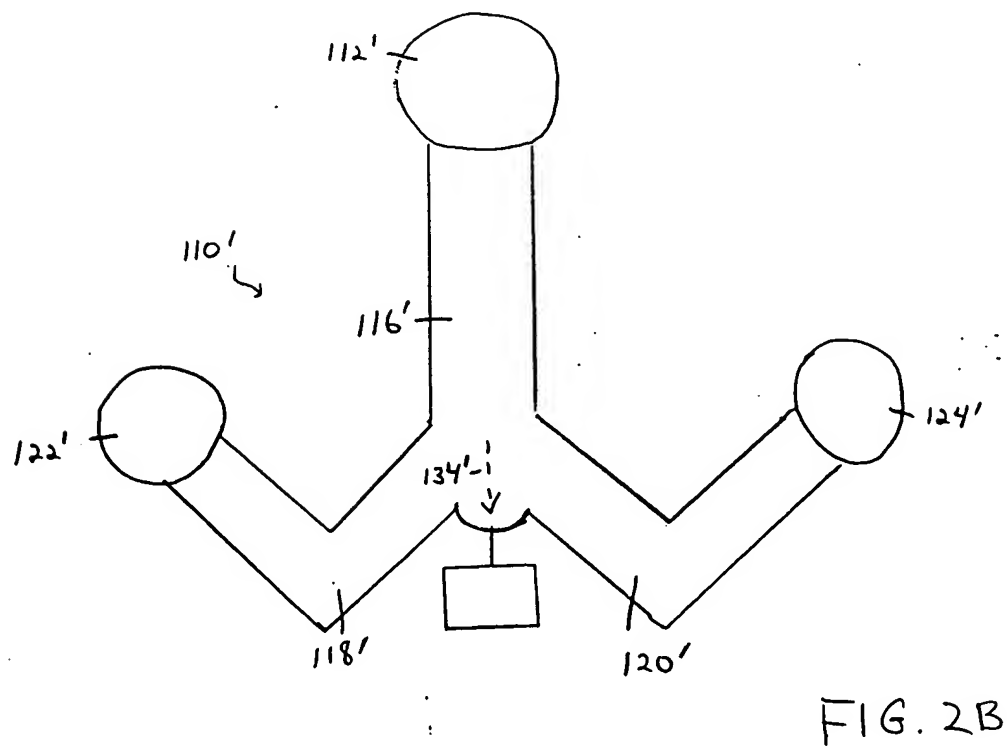
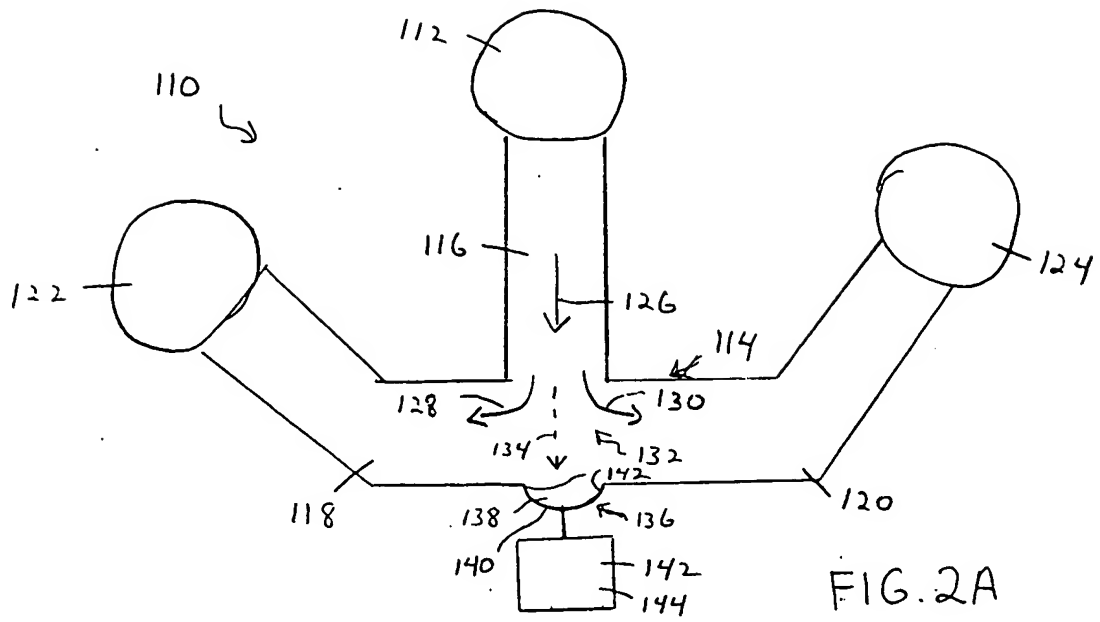


FIG. 1



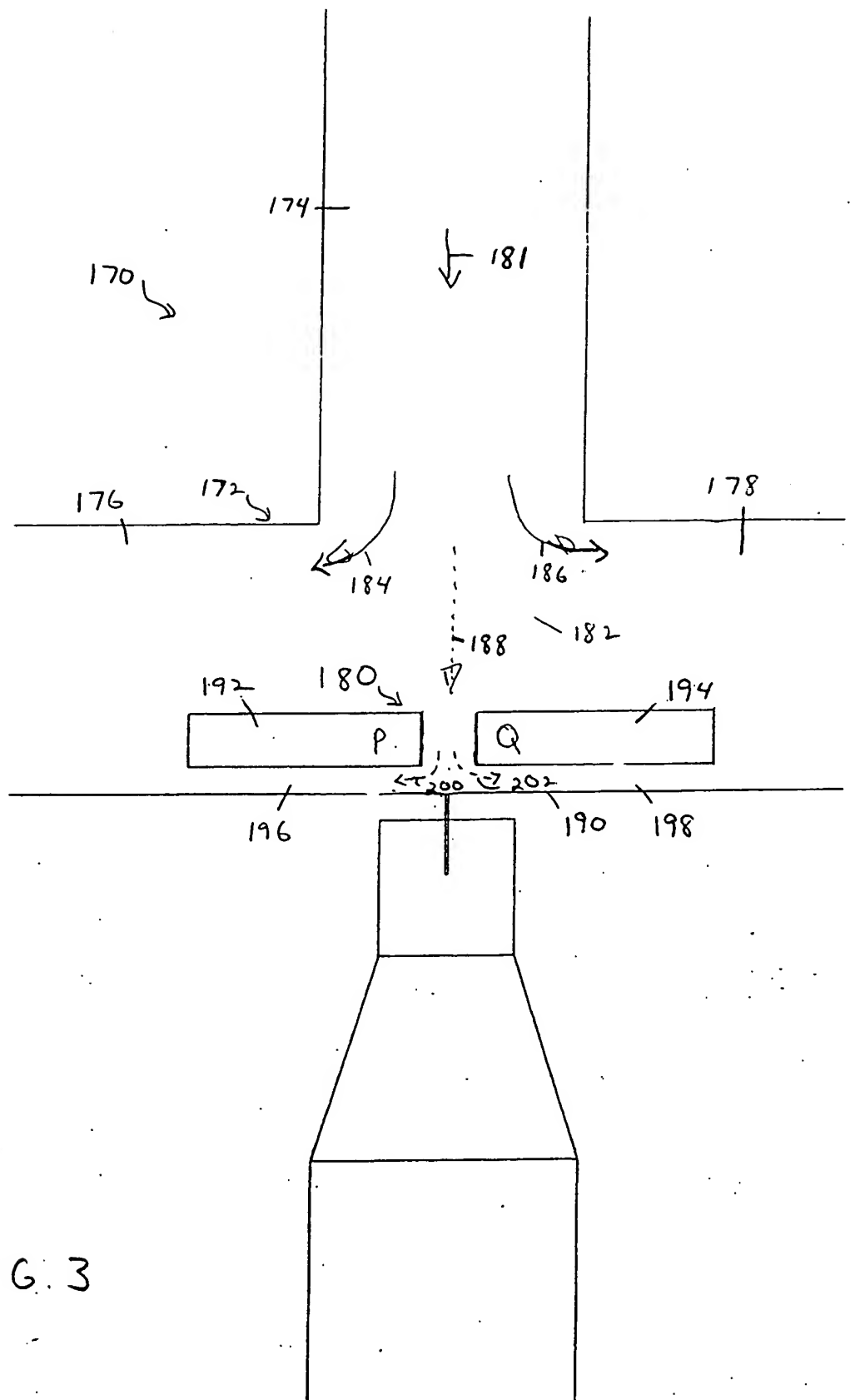


FIG. 3

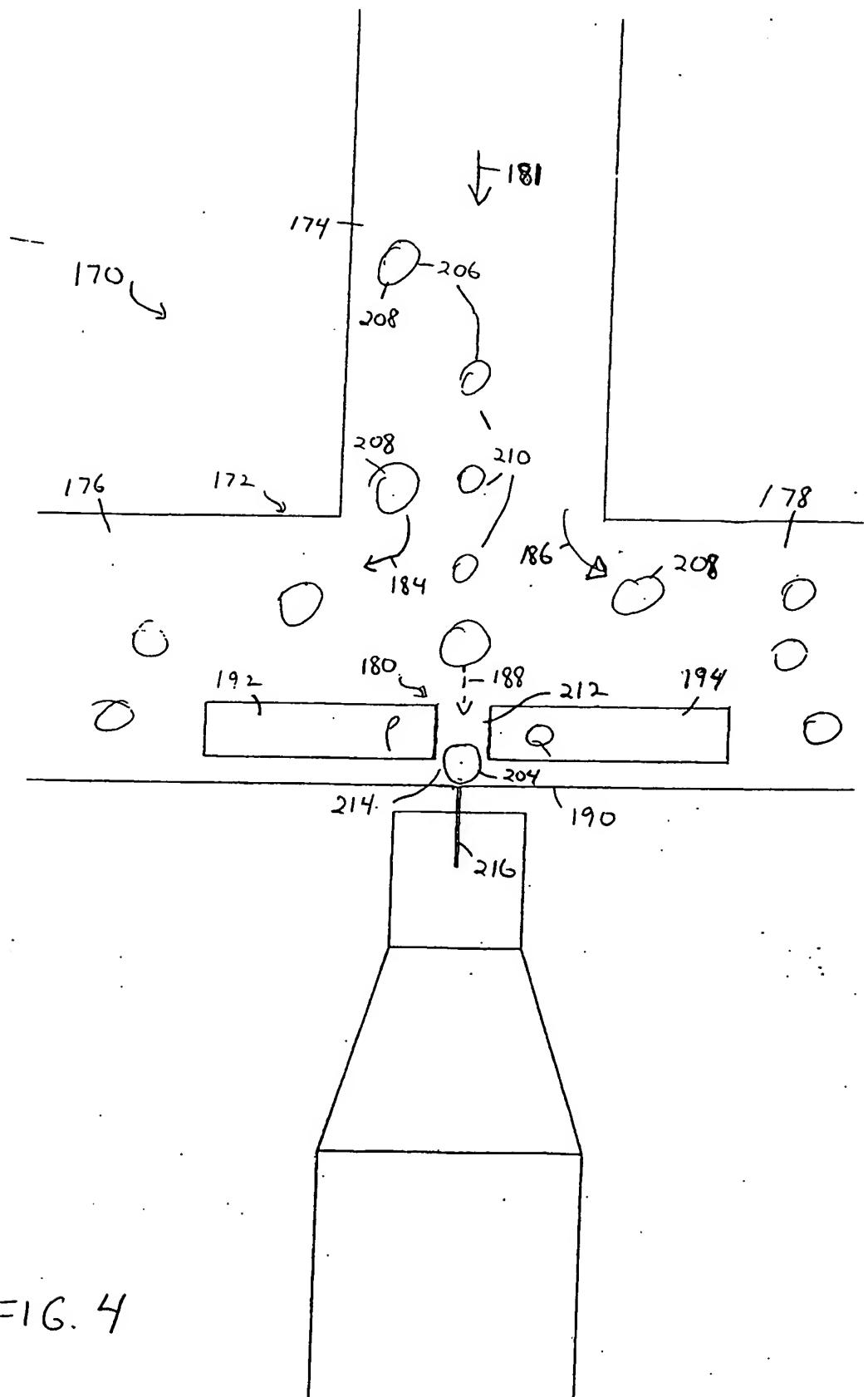


FIG. 4

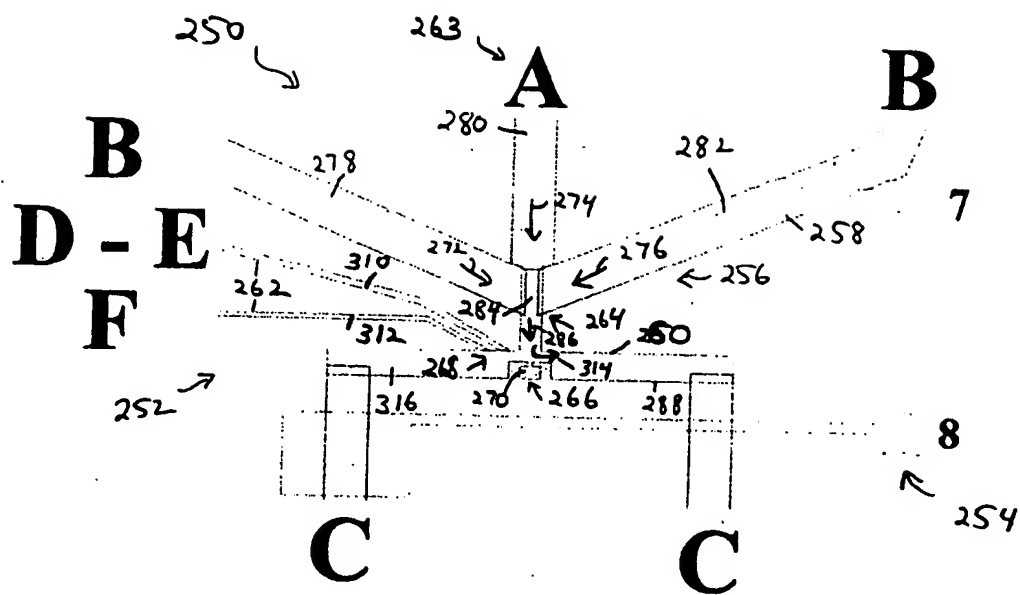


FIG. 5

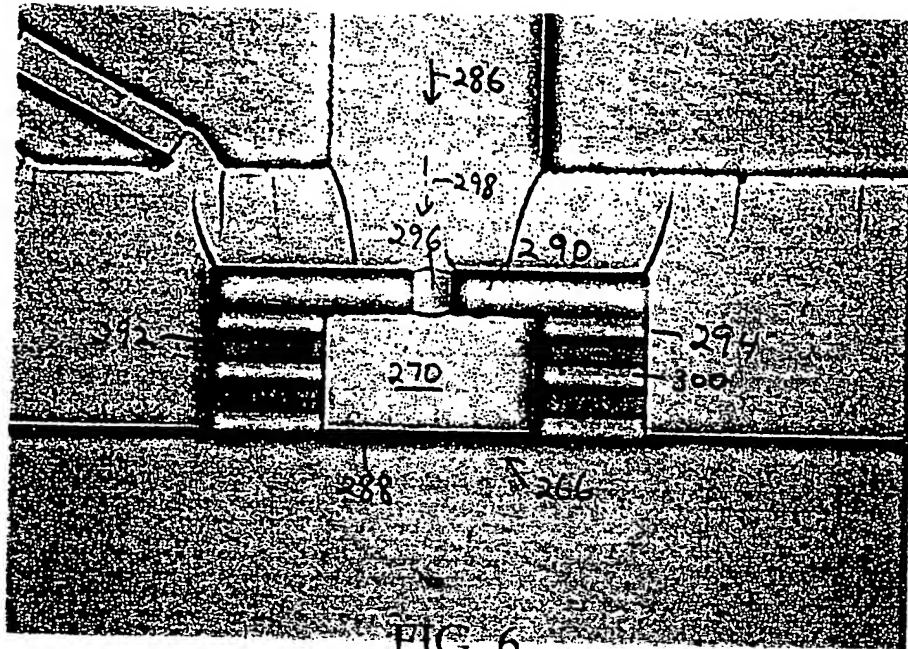


FIG. 6

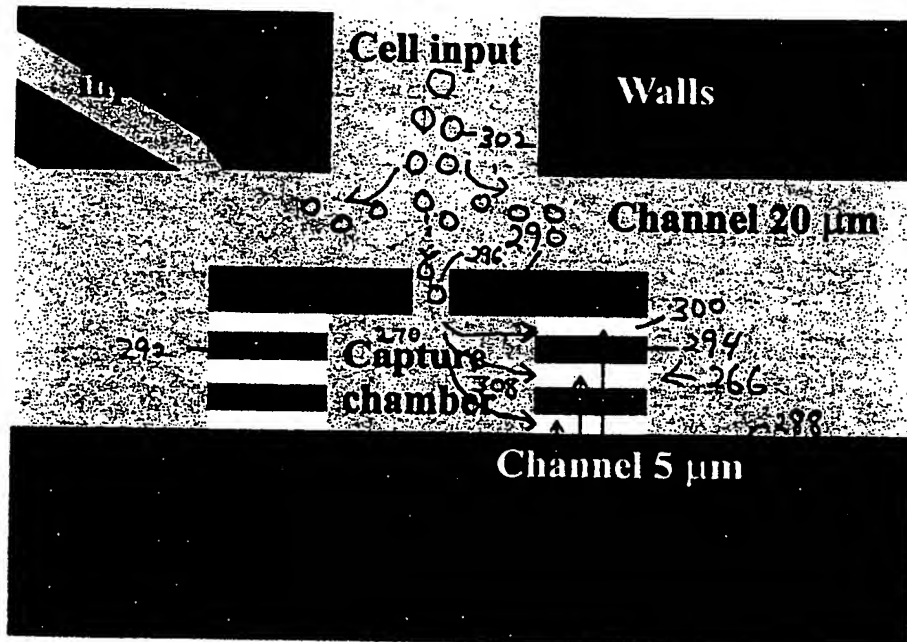
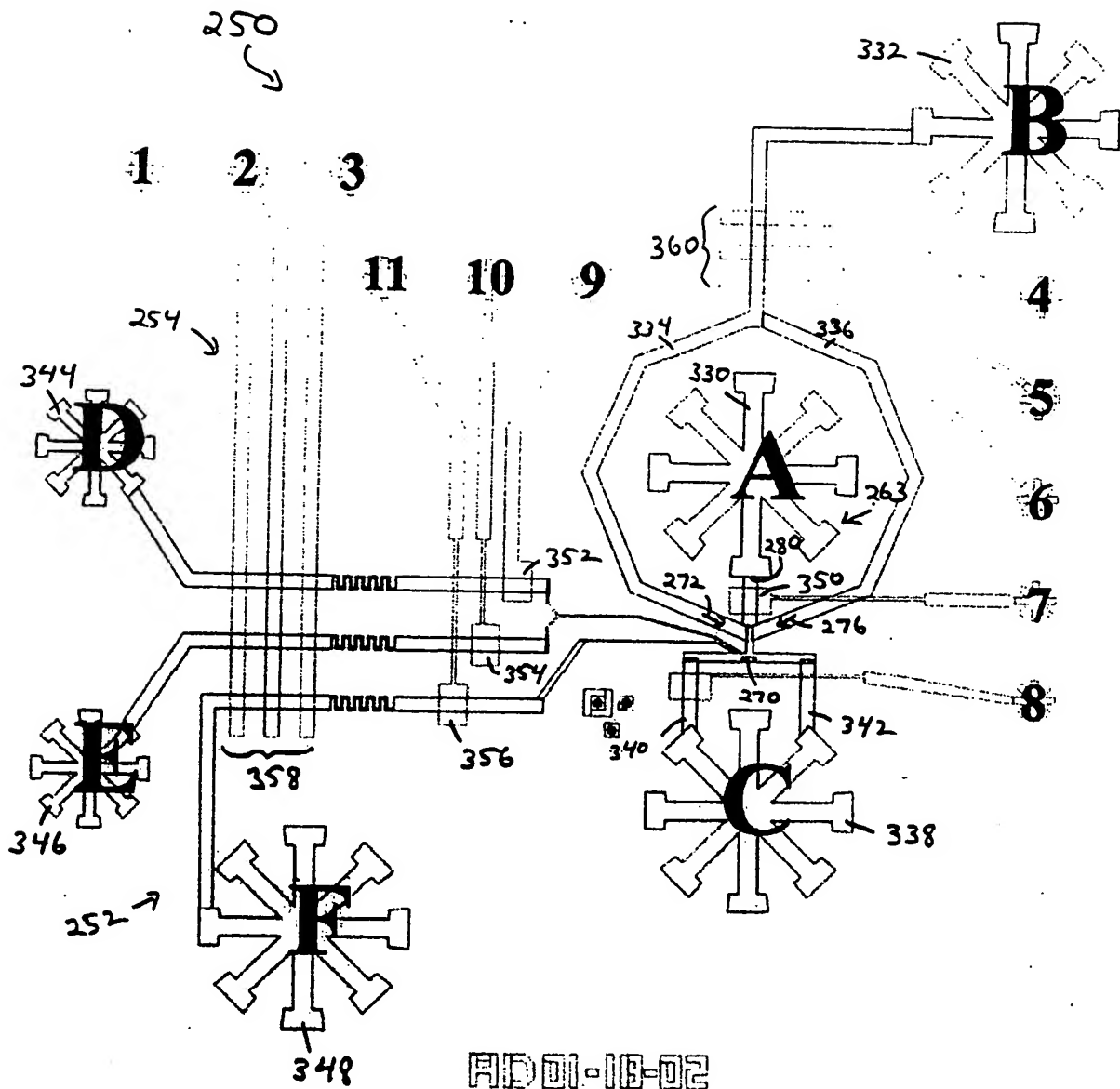


FIG. 7



ADD 1-18-02

FIG. 8

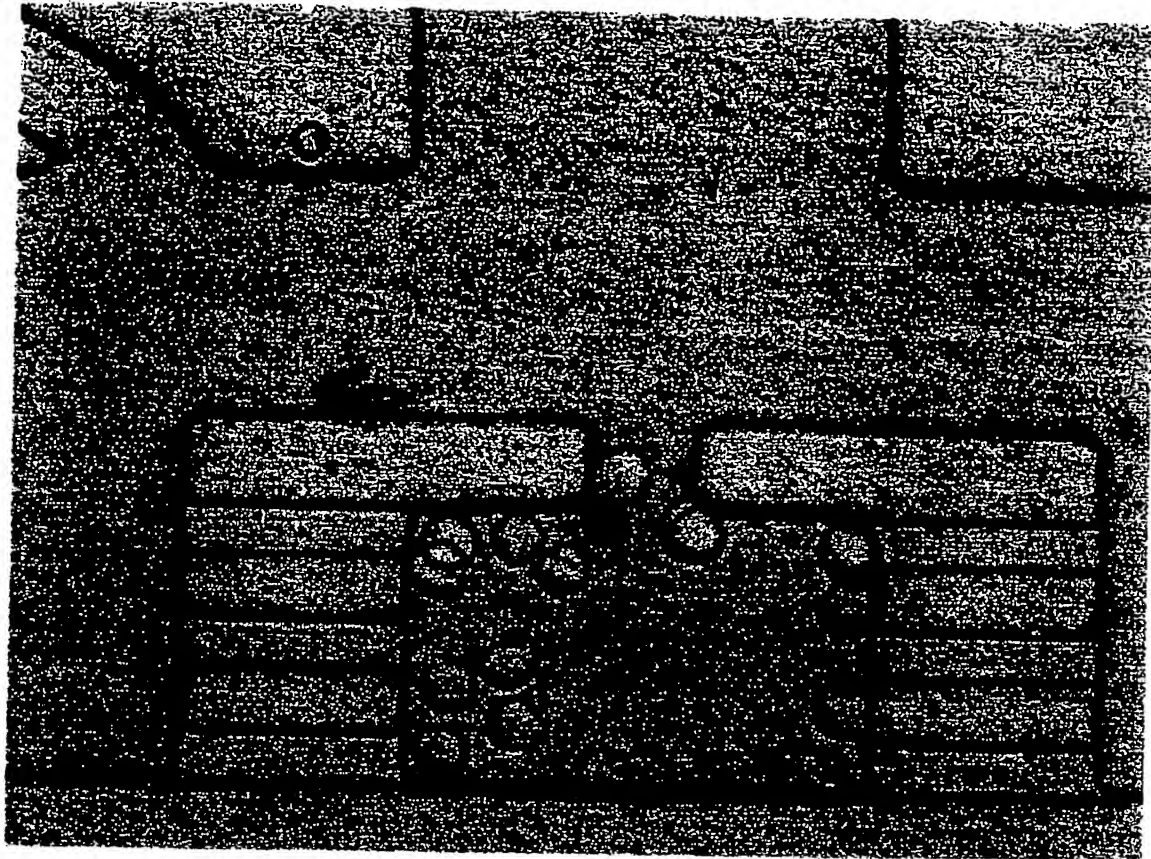


FIG. 9

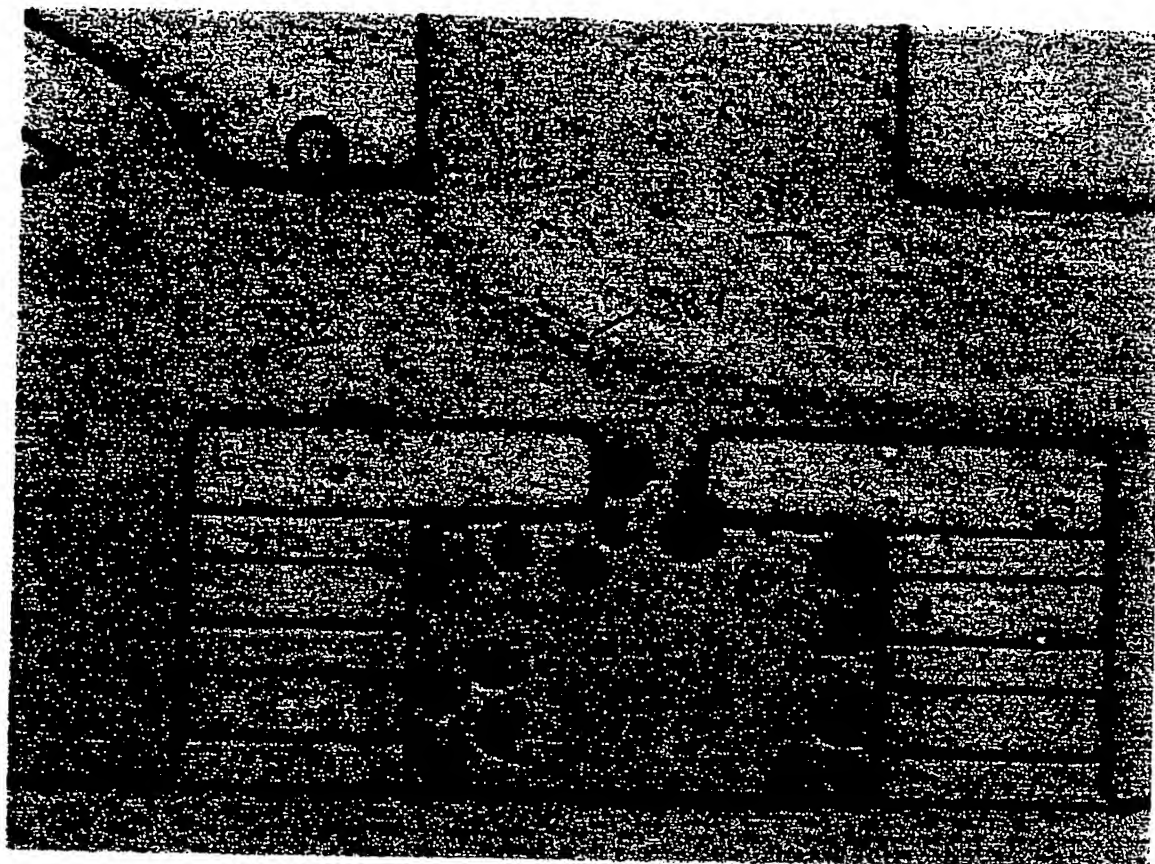


FIG. 10

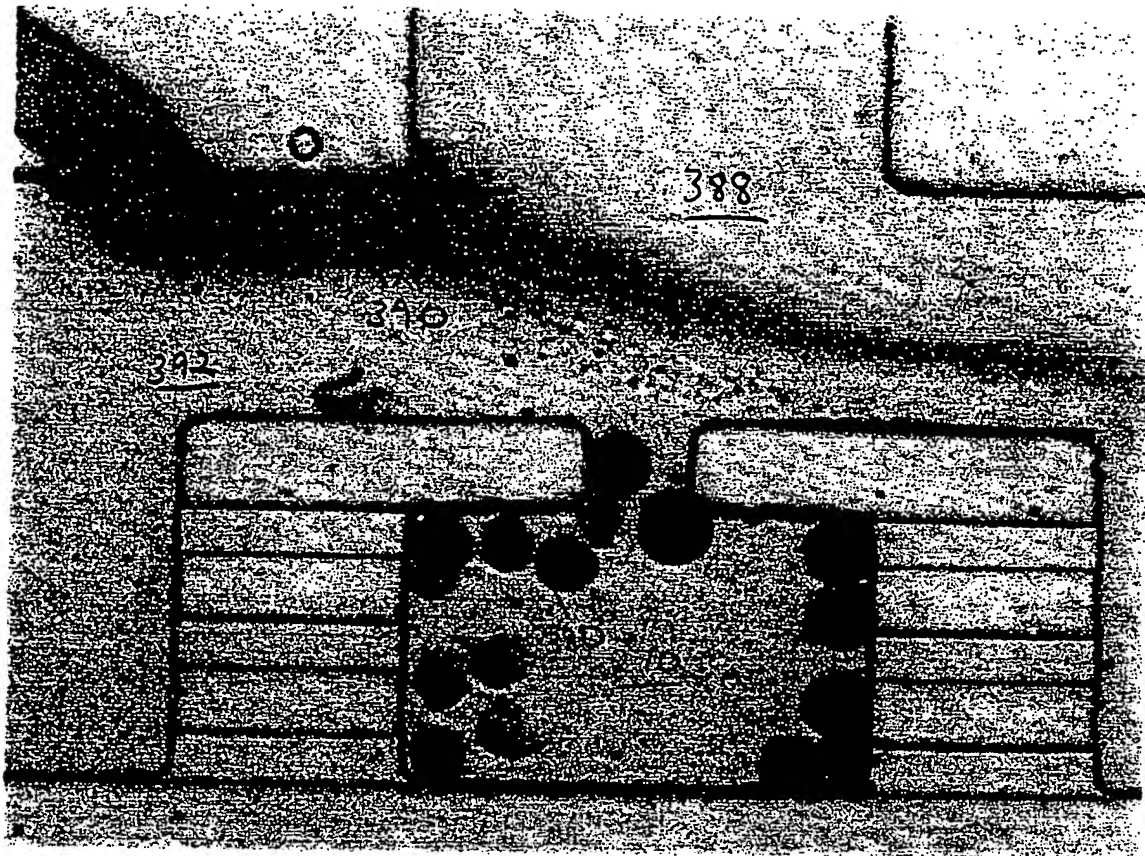


FIG. 11

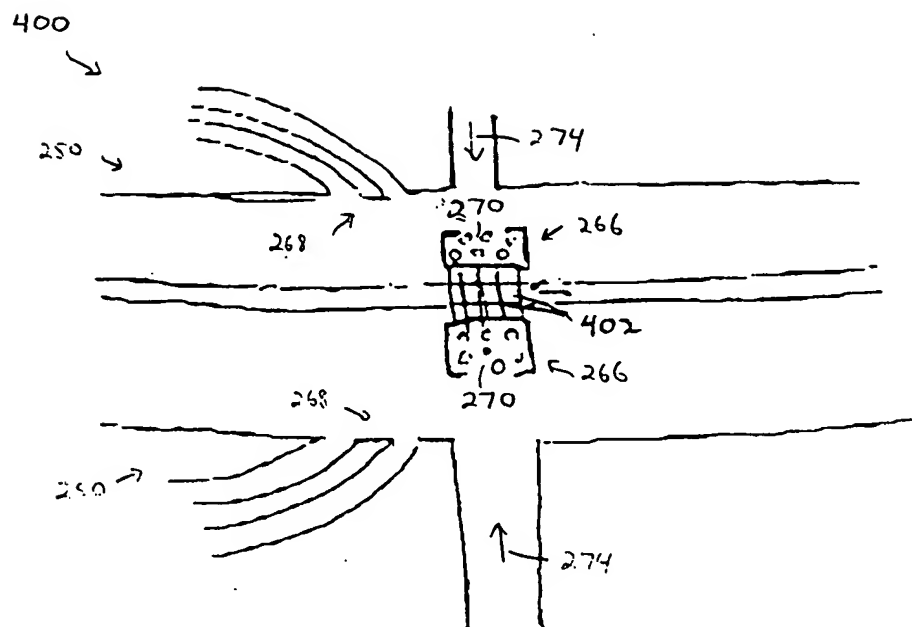


FIG. 11A

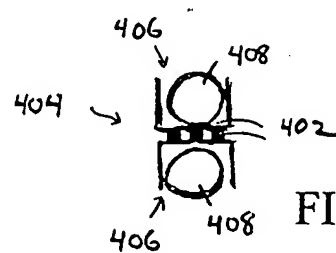


FIG. 11B

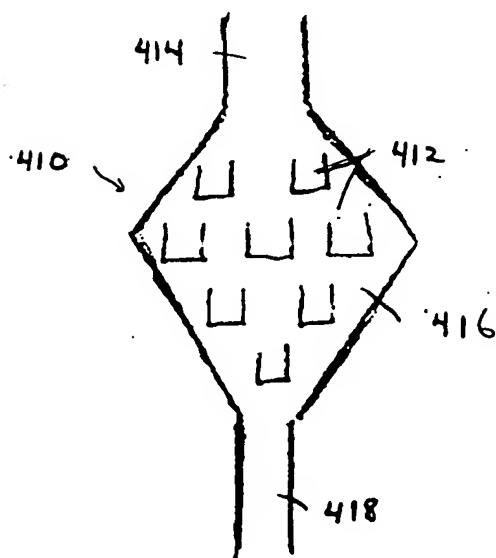


FIG. 11C

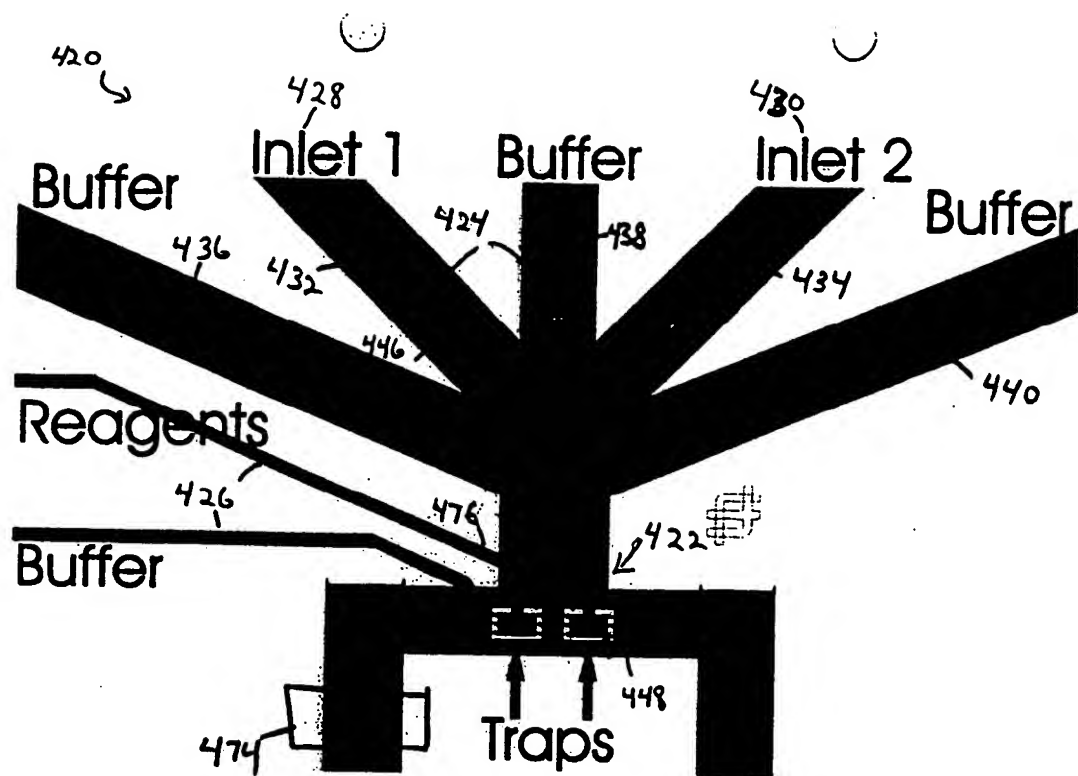


FIG. 12

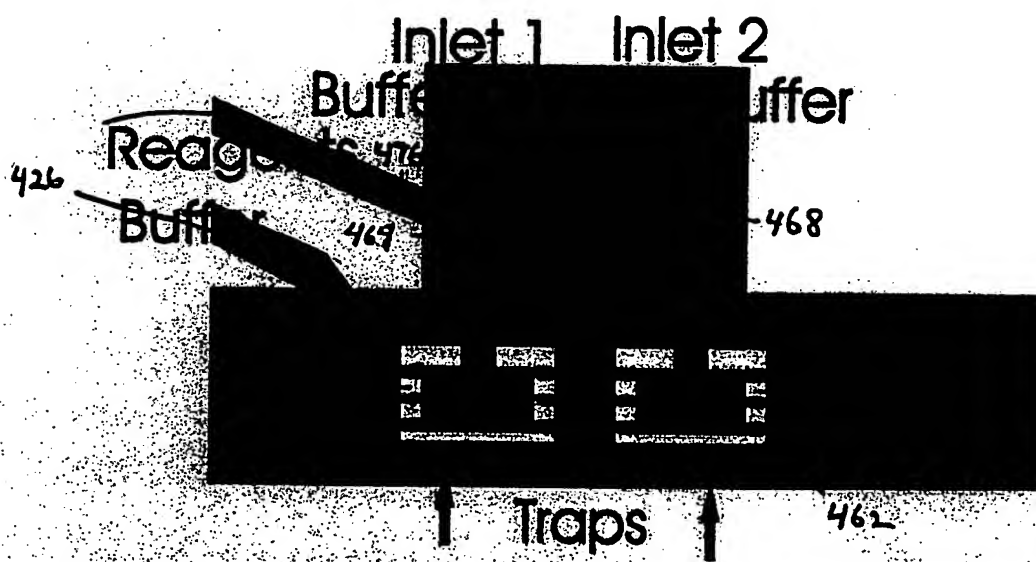


FIG. 13

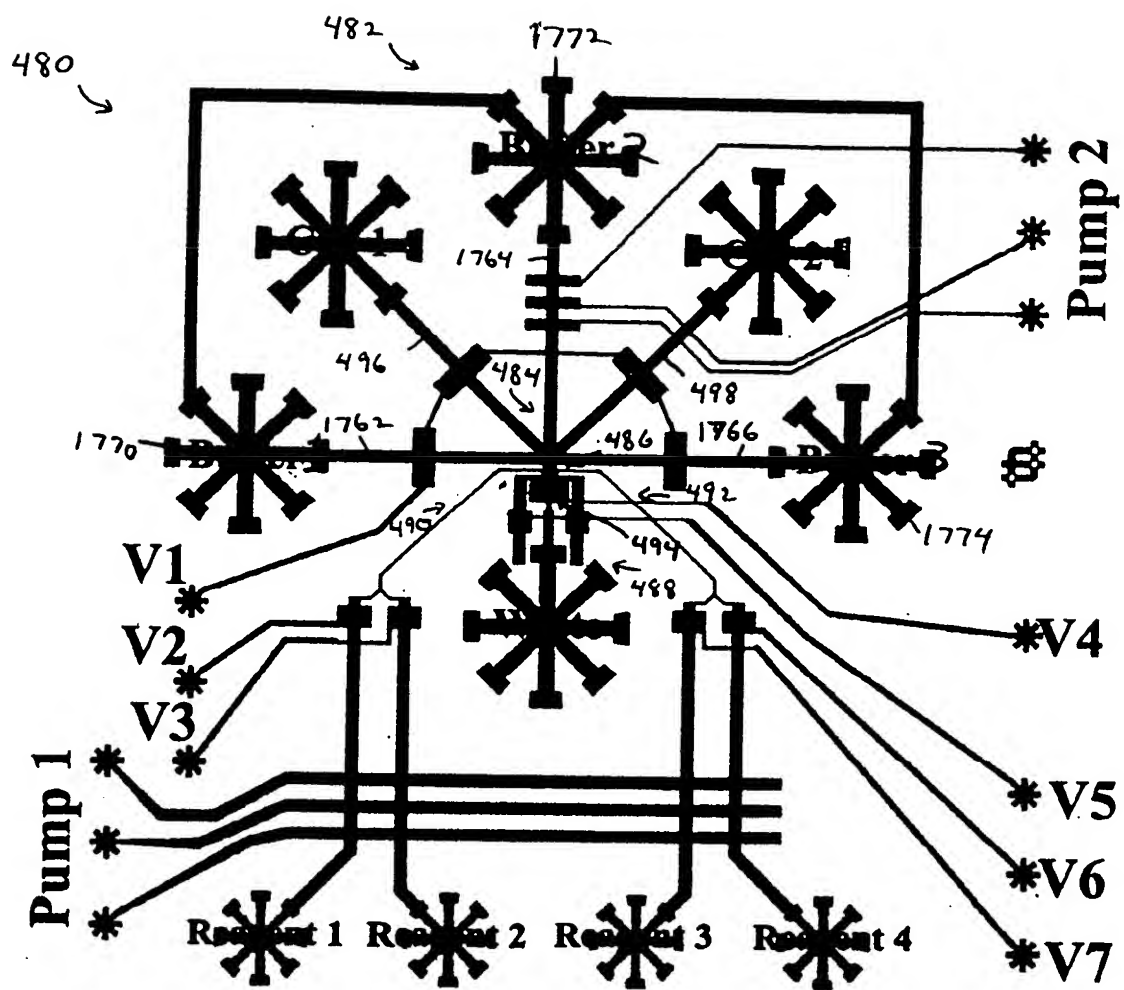


FIG. 13A

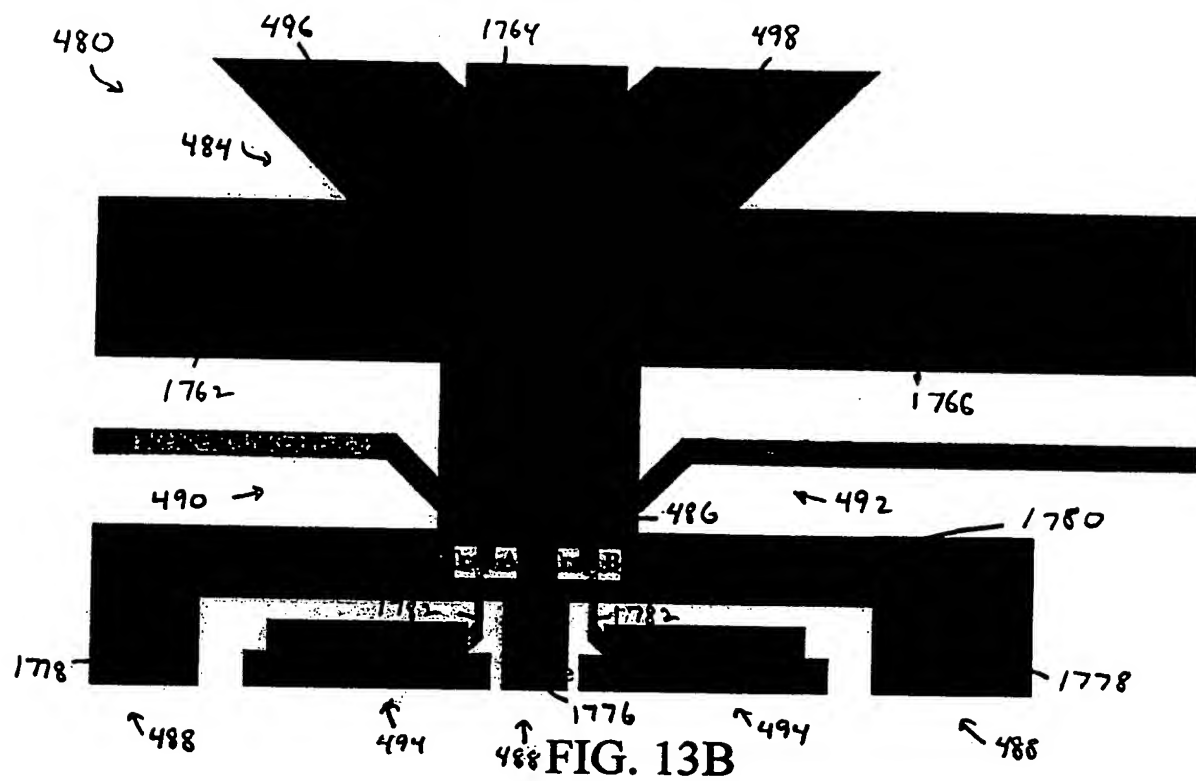


FIG. 13B

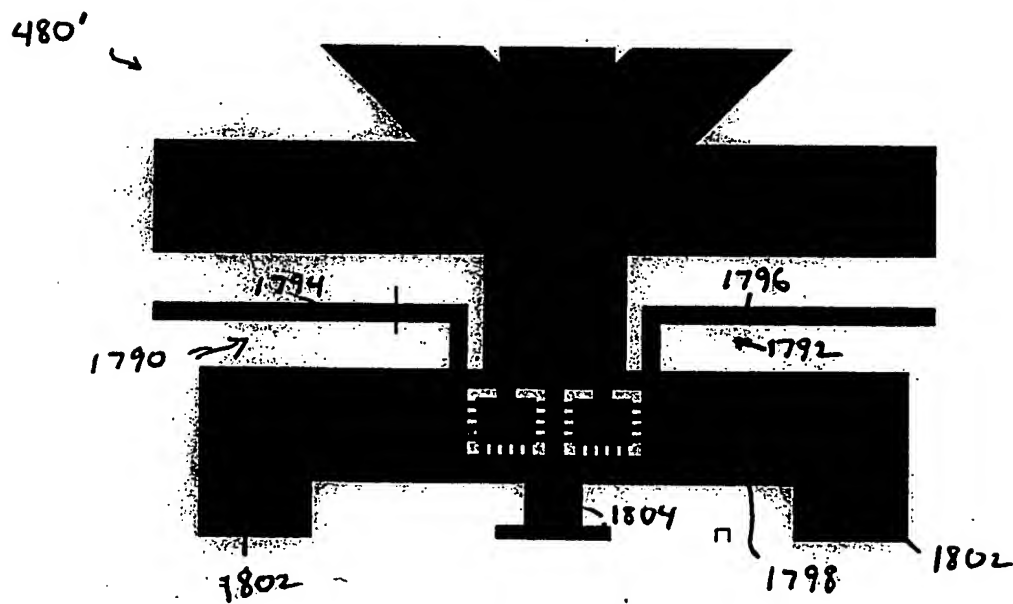


FIG. 13C

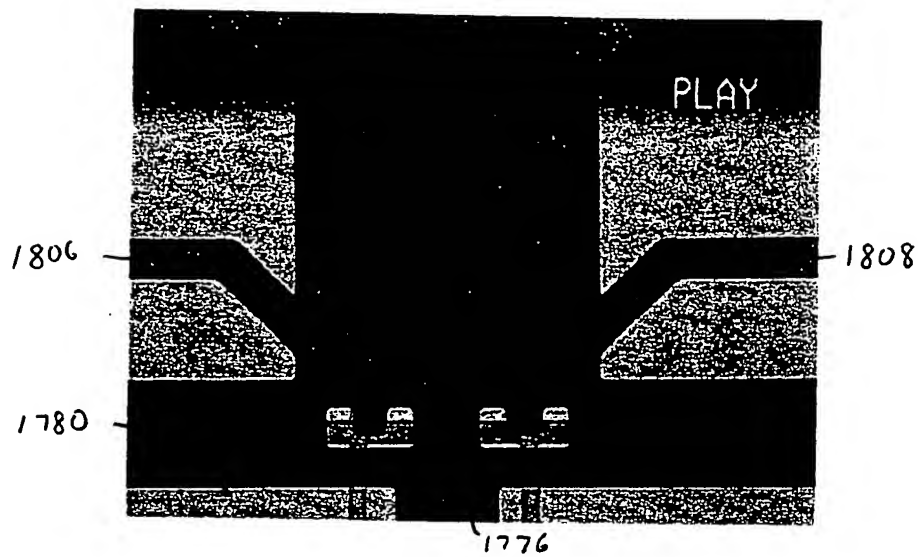


FIG. 13D

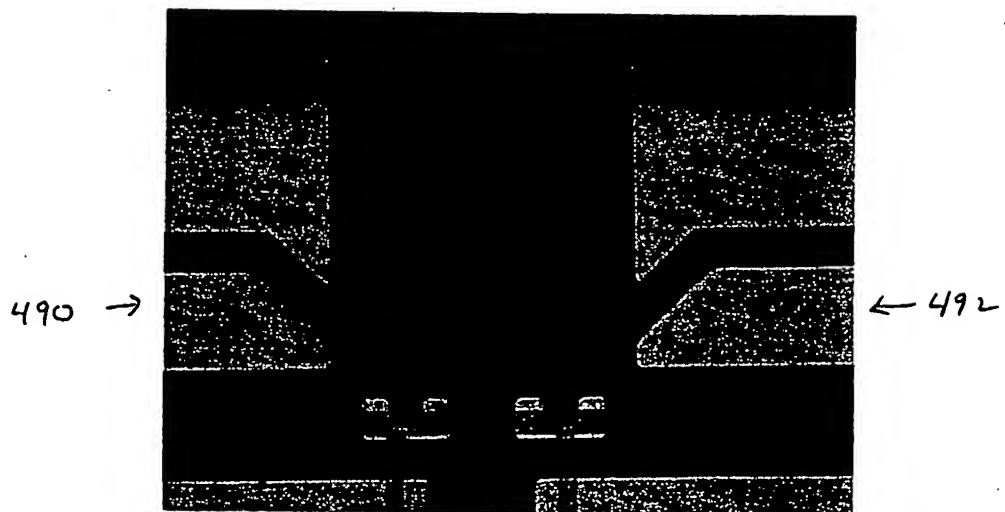


FIG. 13E

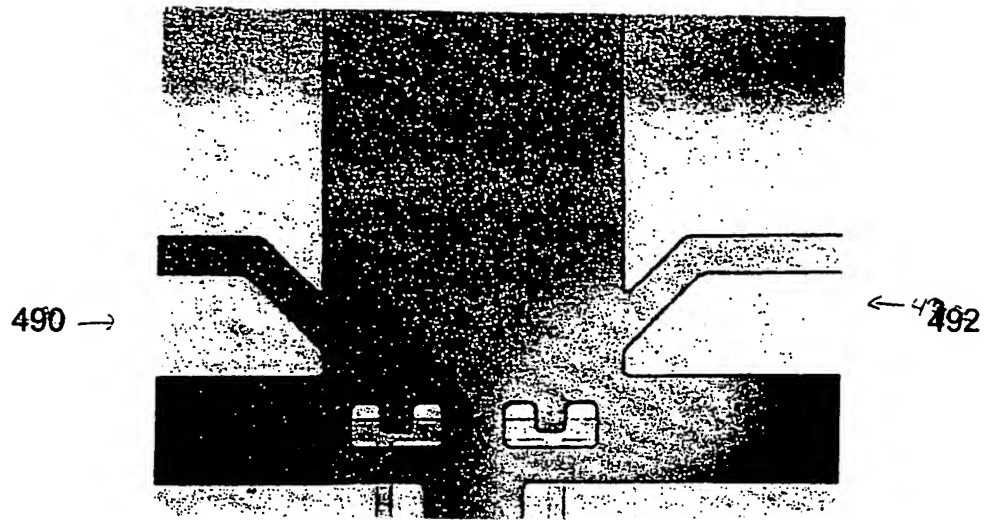
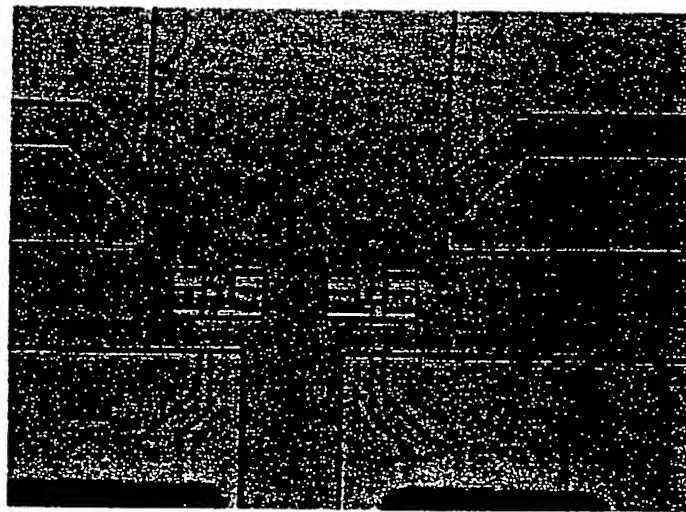
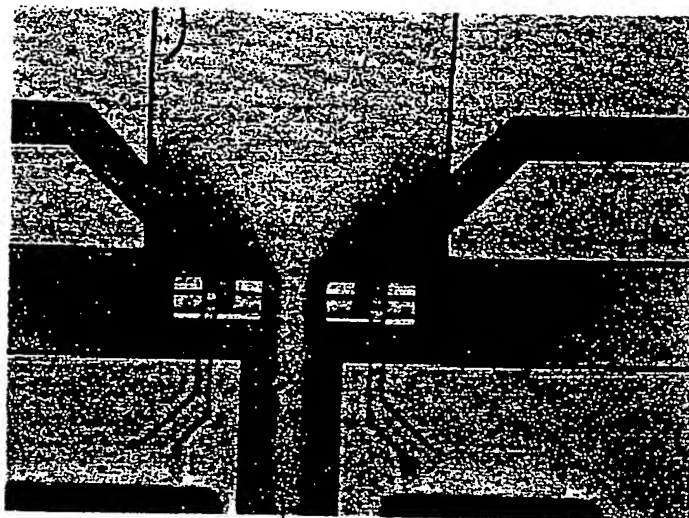


FIG. 13F





1814
FIG. 13H

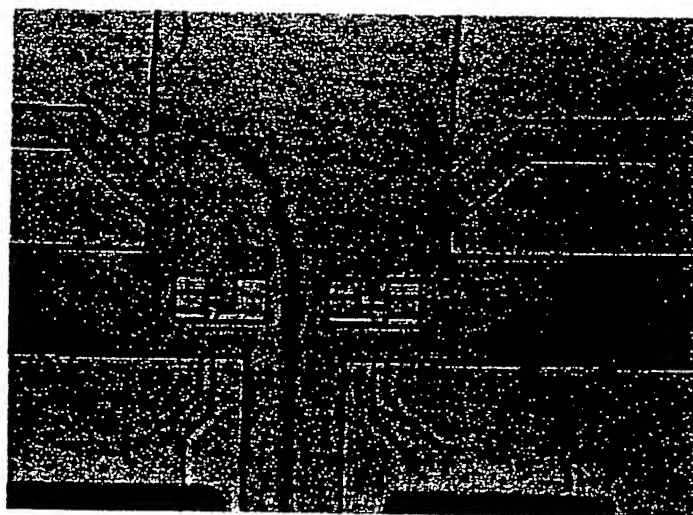


FIG. 13I

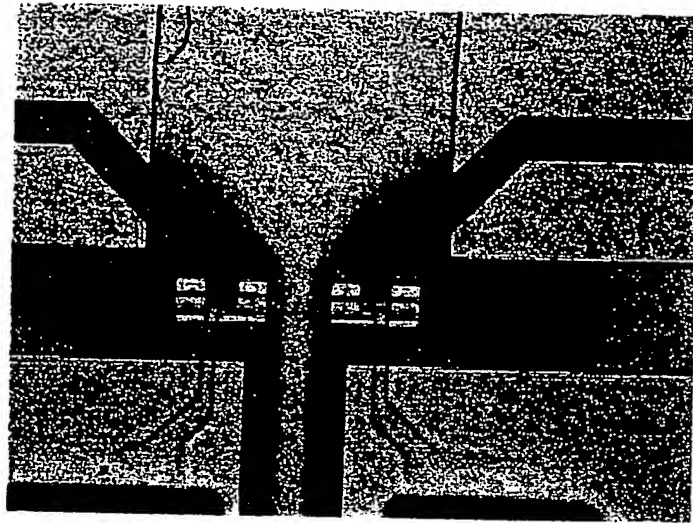


FIG. 13J

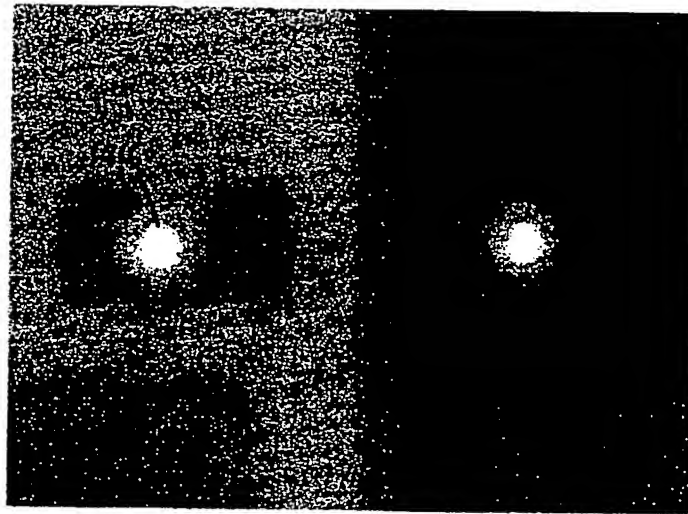


FIG. 13K

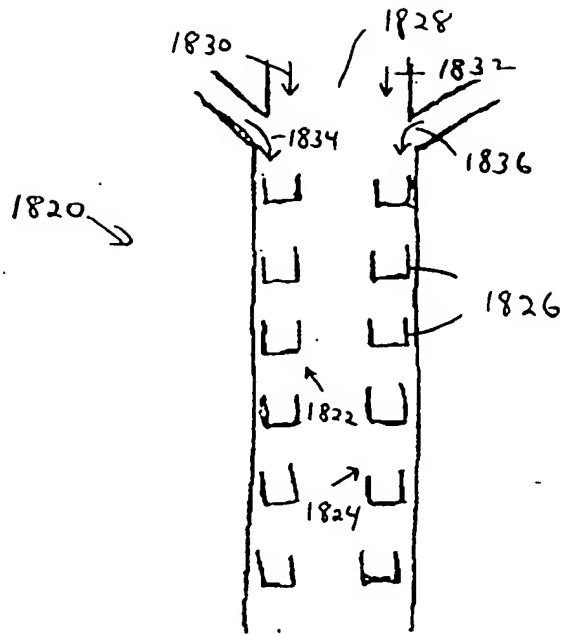


FIG. 13L



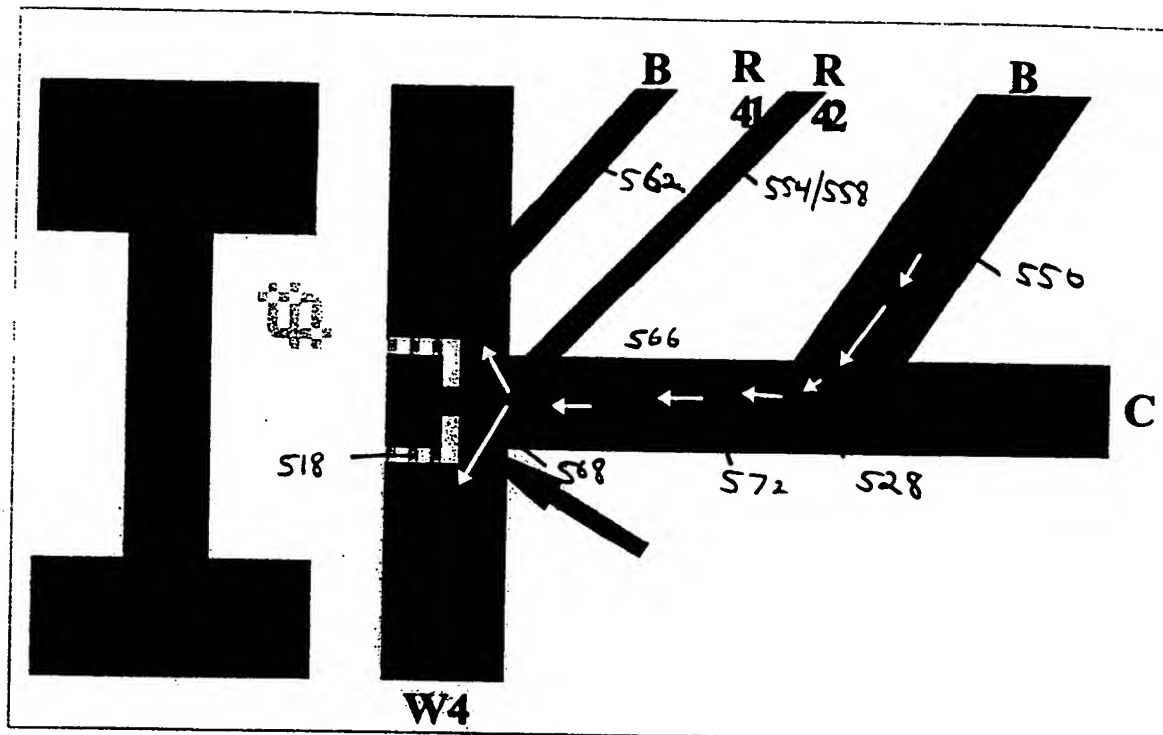


FIG. 16

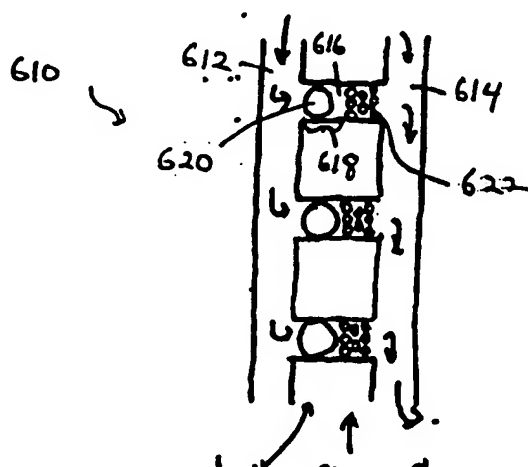
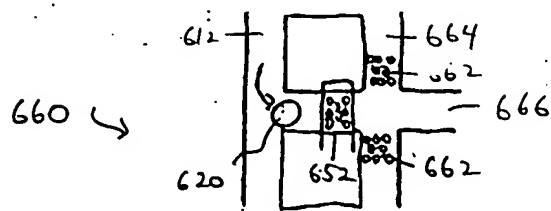
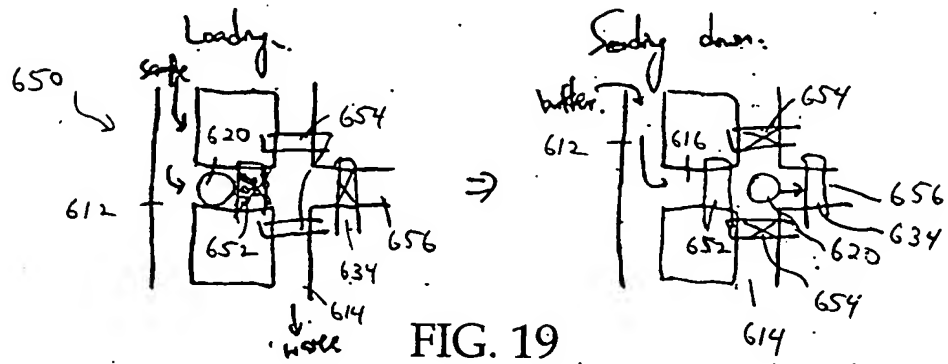
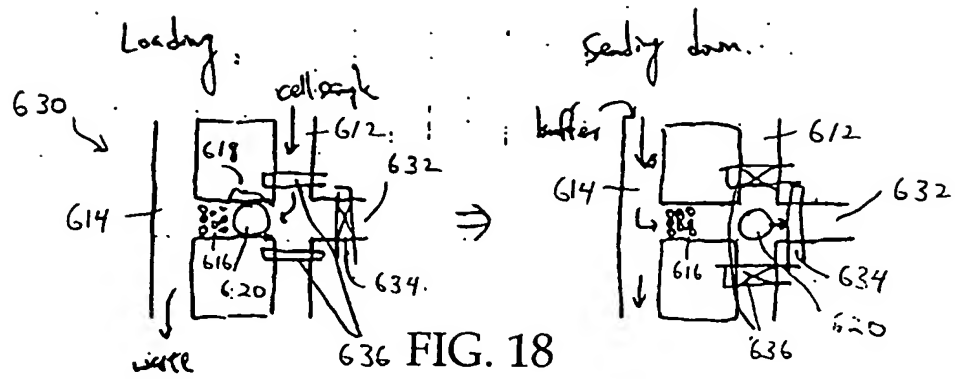


FIG. 17



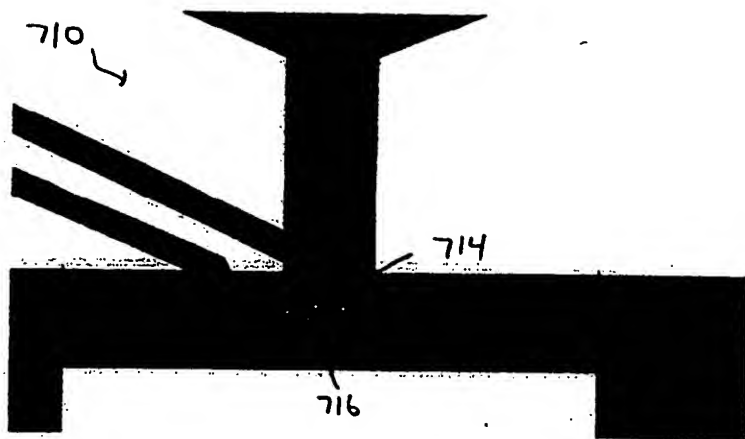


FIG. 21

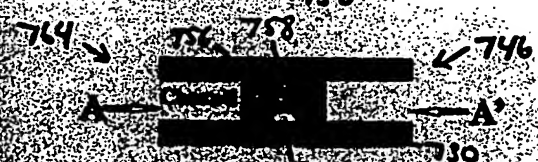
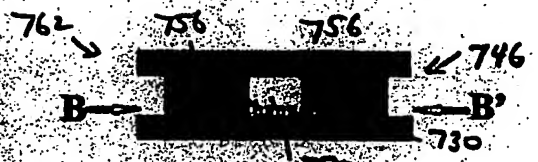
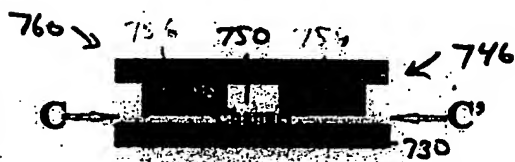
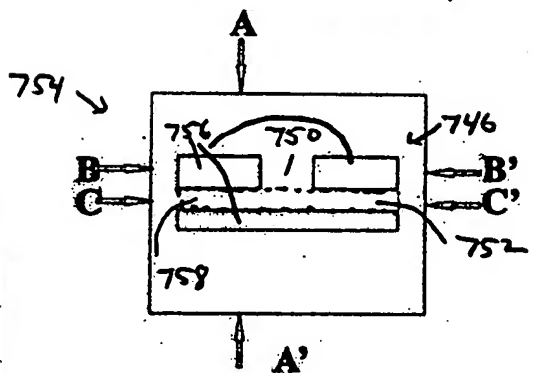
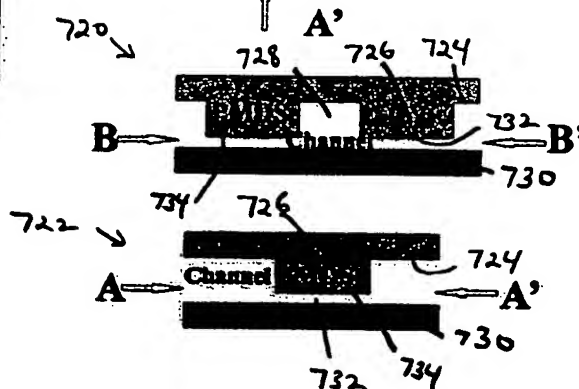
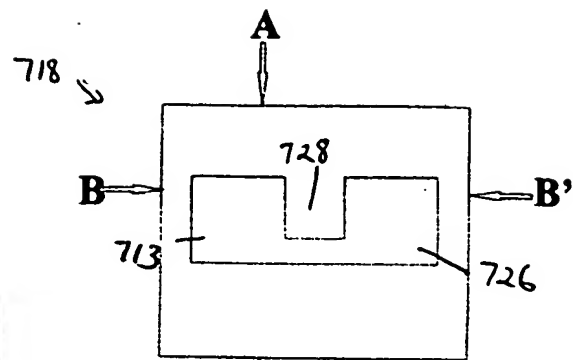
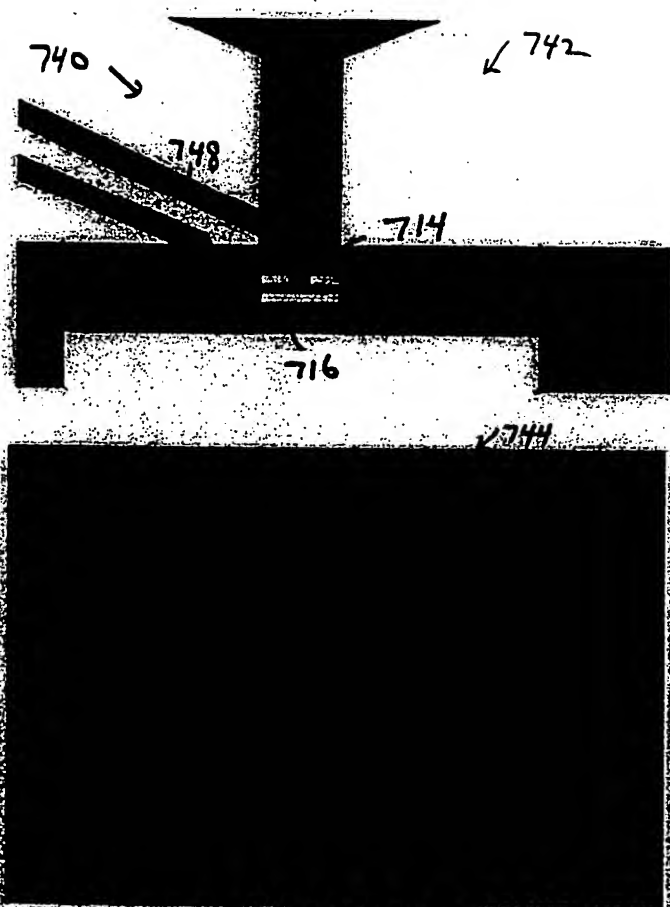


FIG. 22

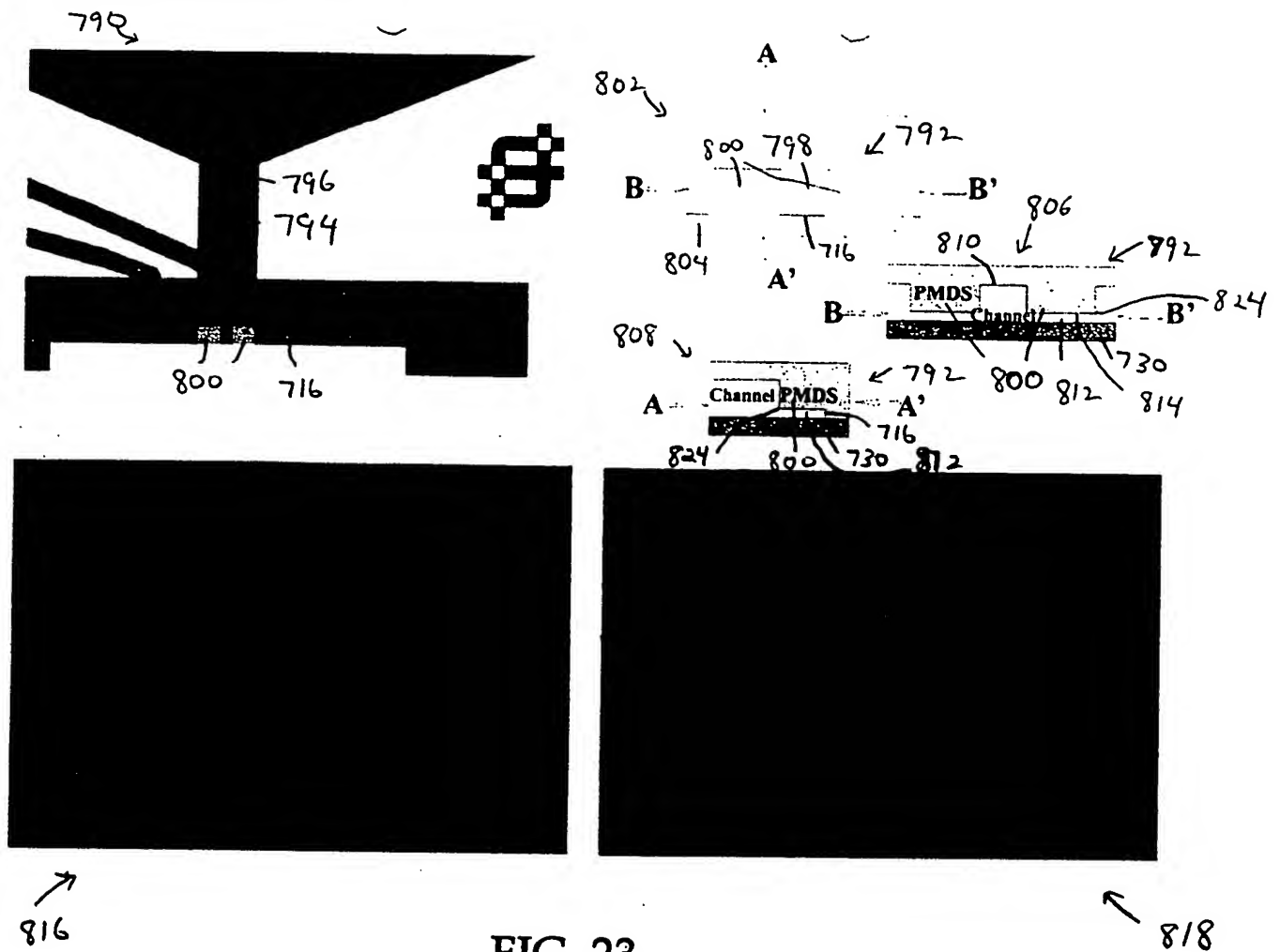


FIG. 23

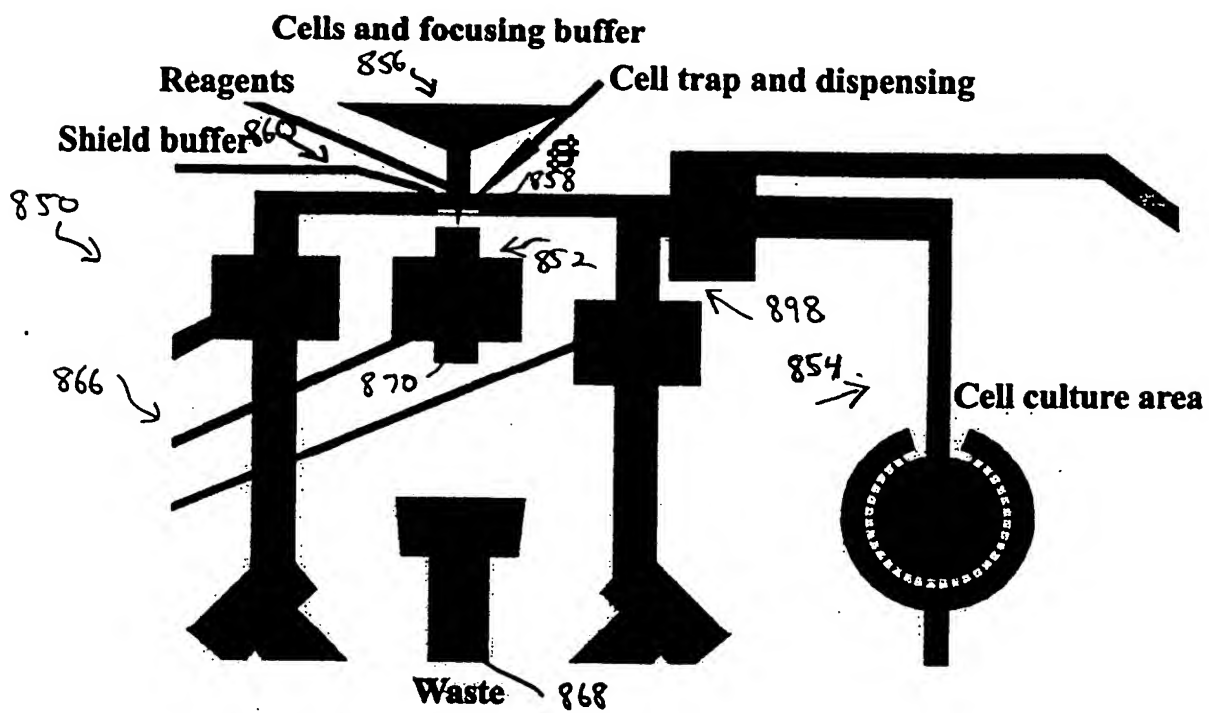


FIG. 24

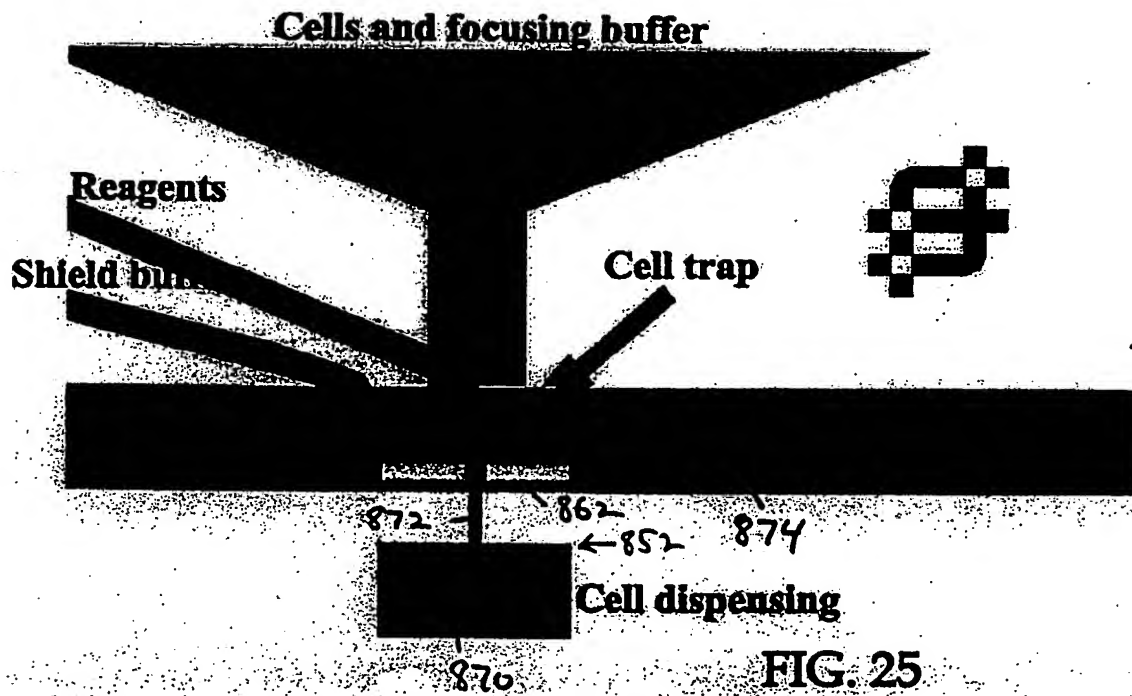


FIG. 25

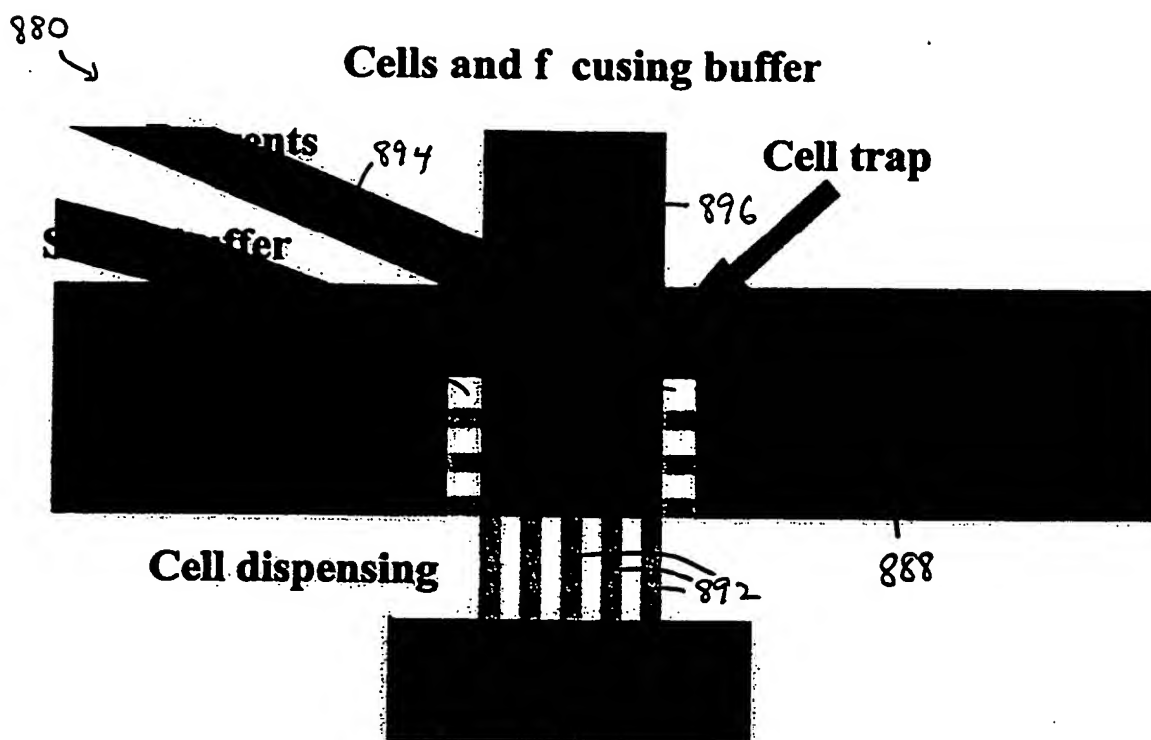


FIG. 26

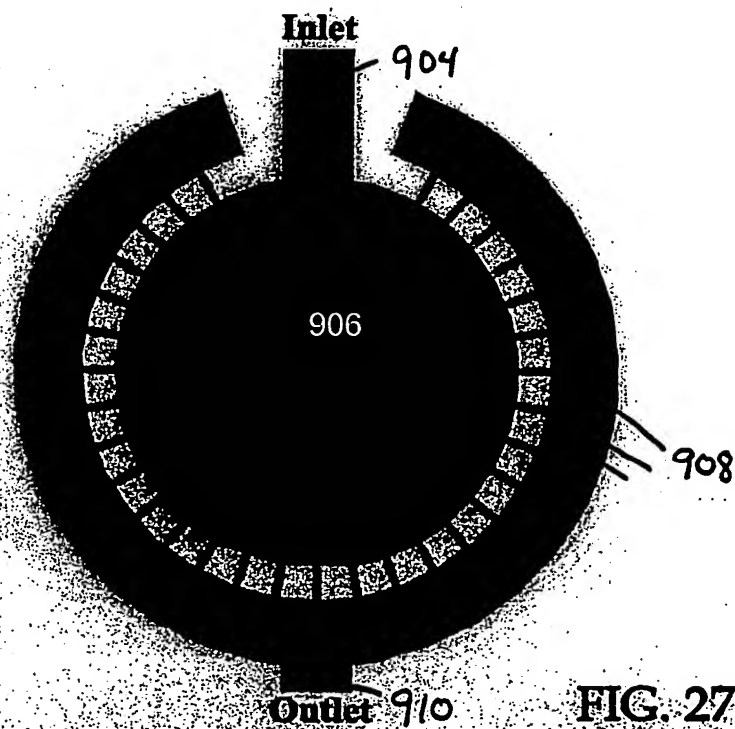


FIG. 27

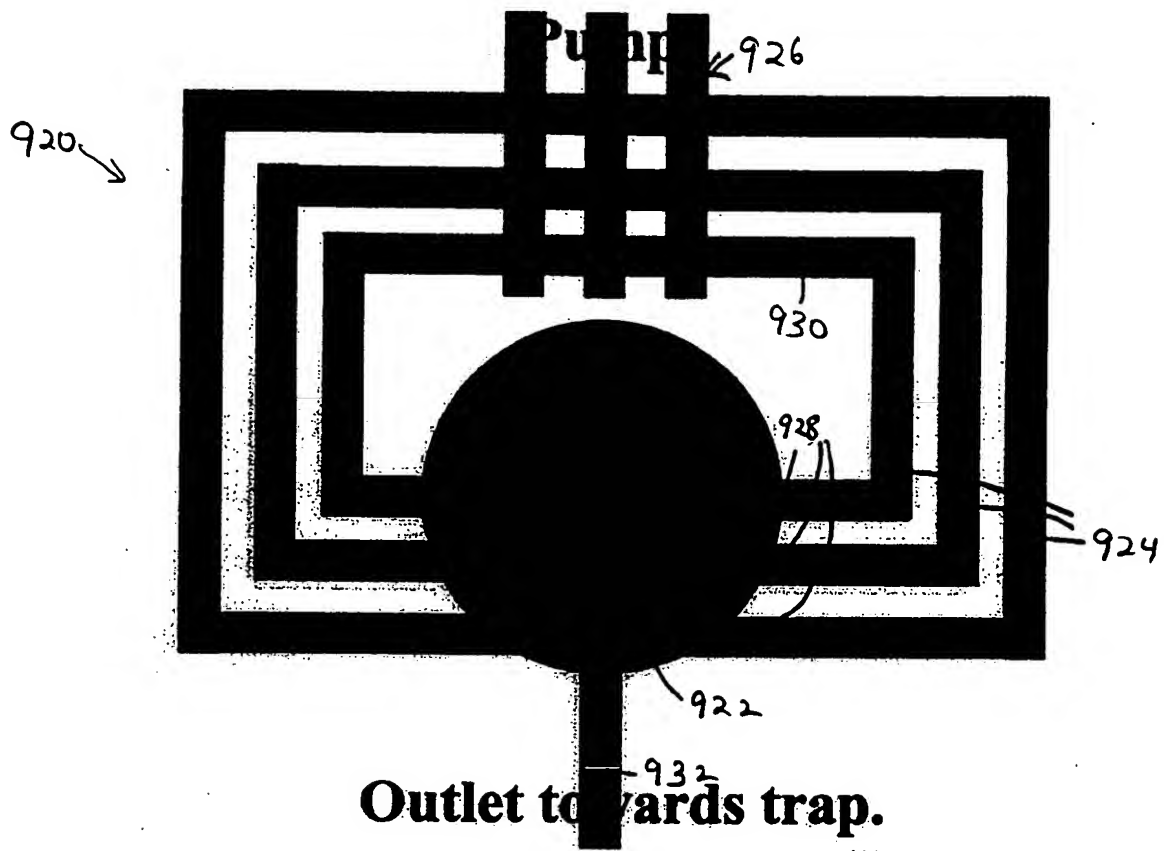


FIG. 28

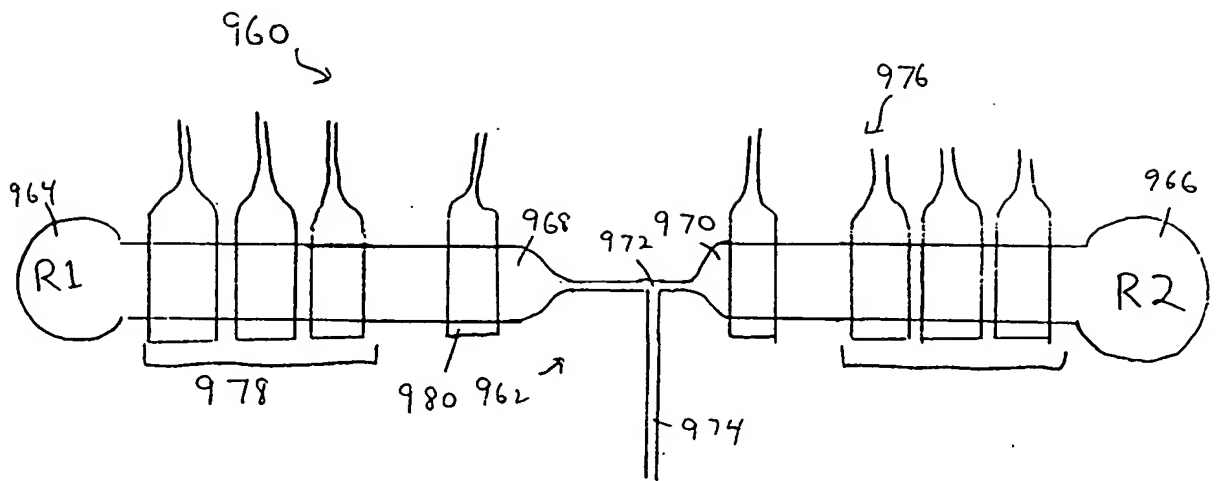


FIG. 29

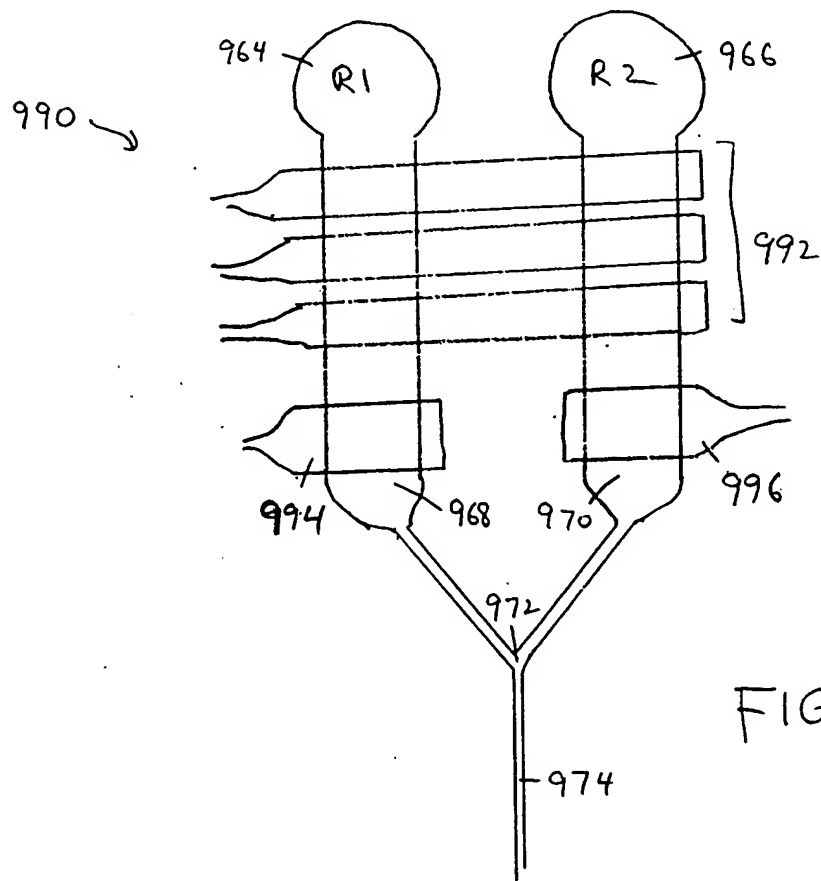


FIG. 30

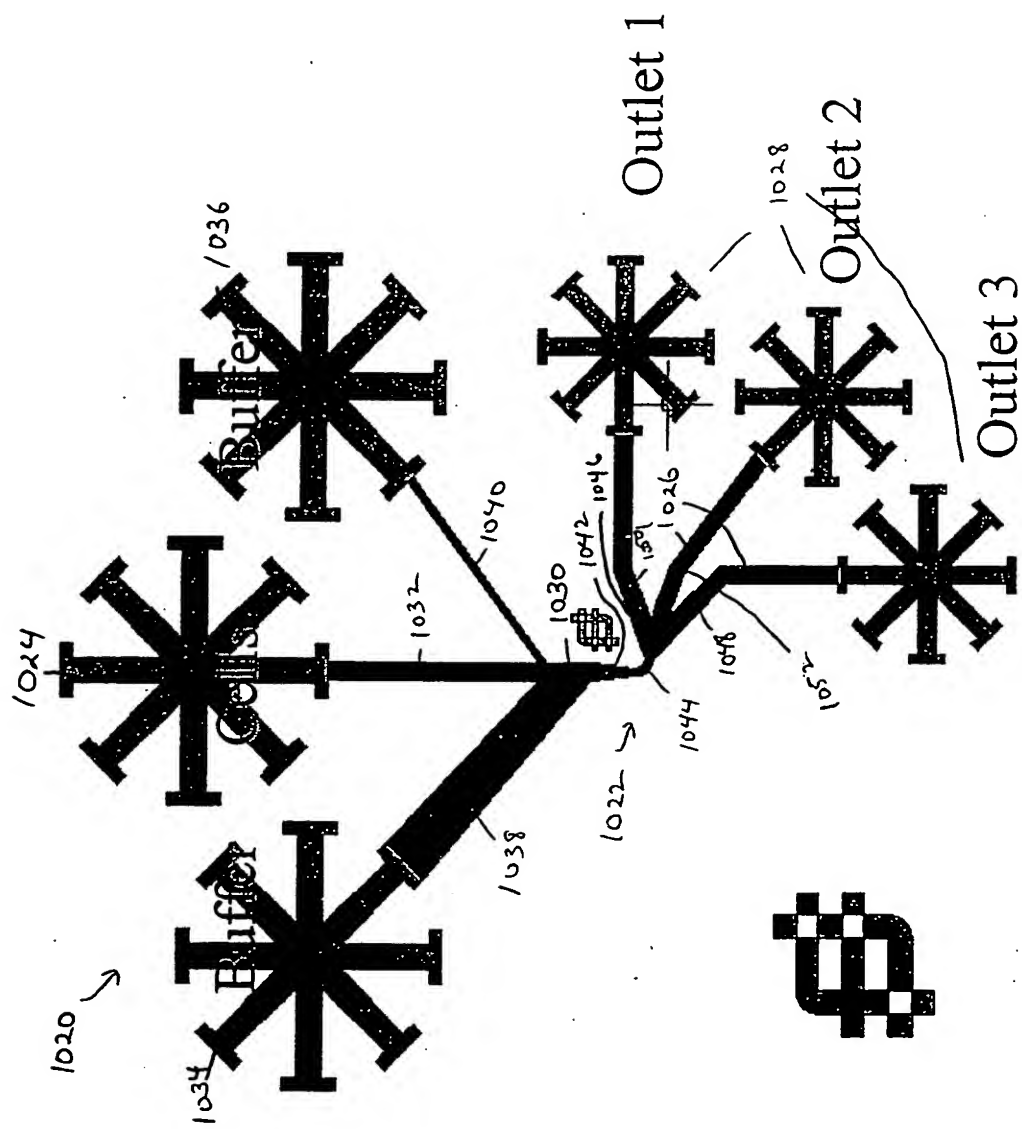


FIG. 31

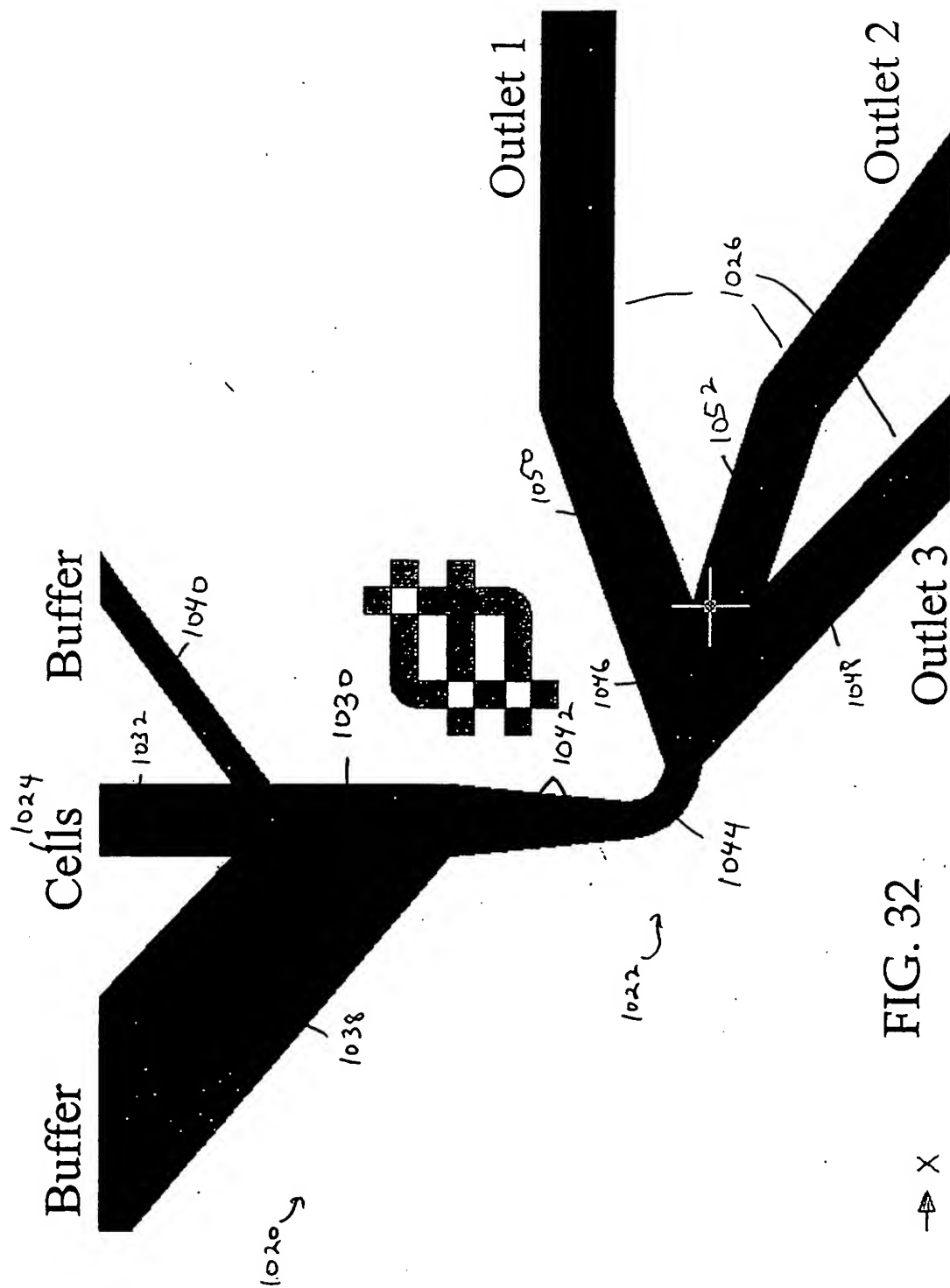


FIG. 32

→ X

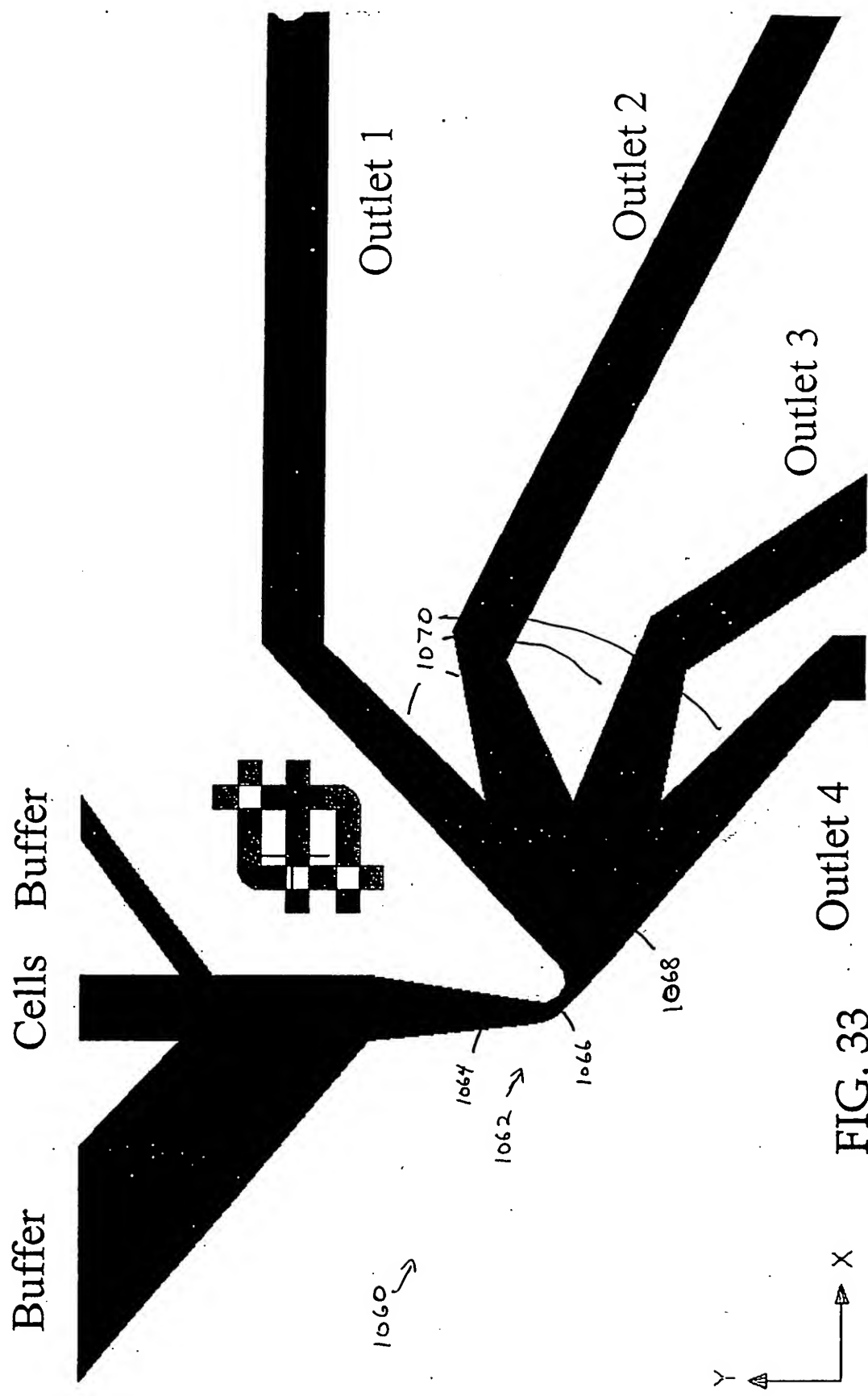


FIG. 33

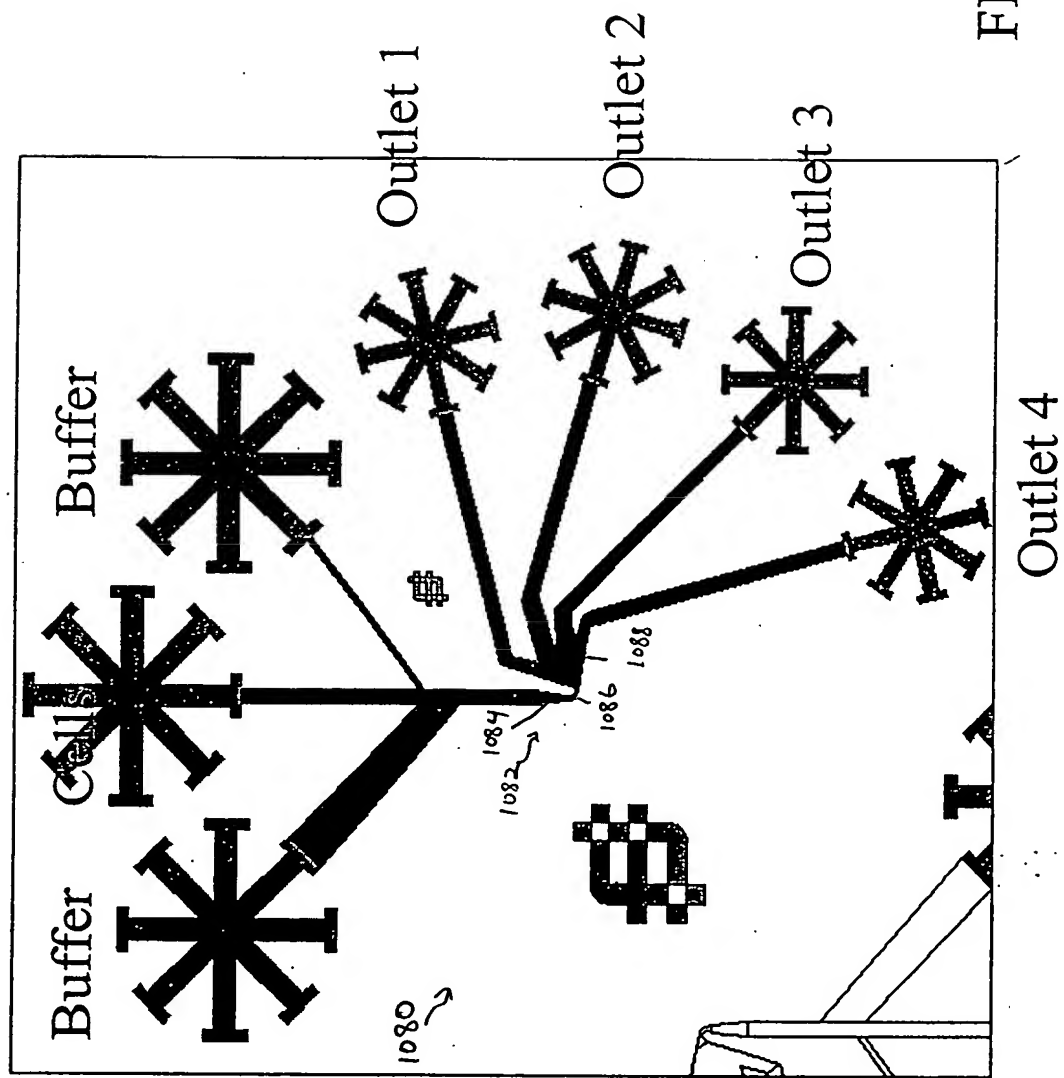


FIG. 34

Buffer Cells Buffer

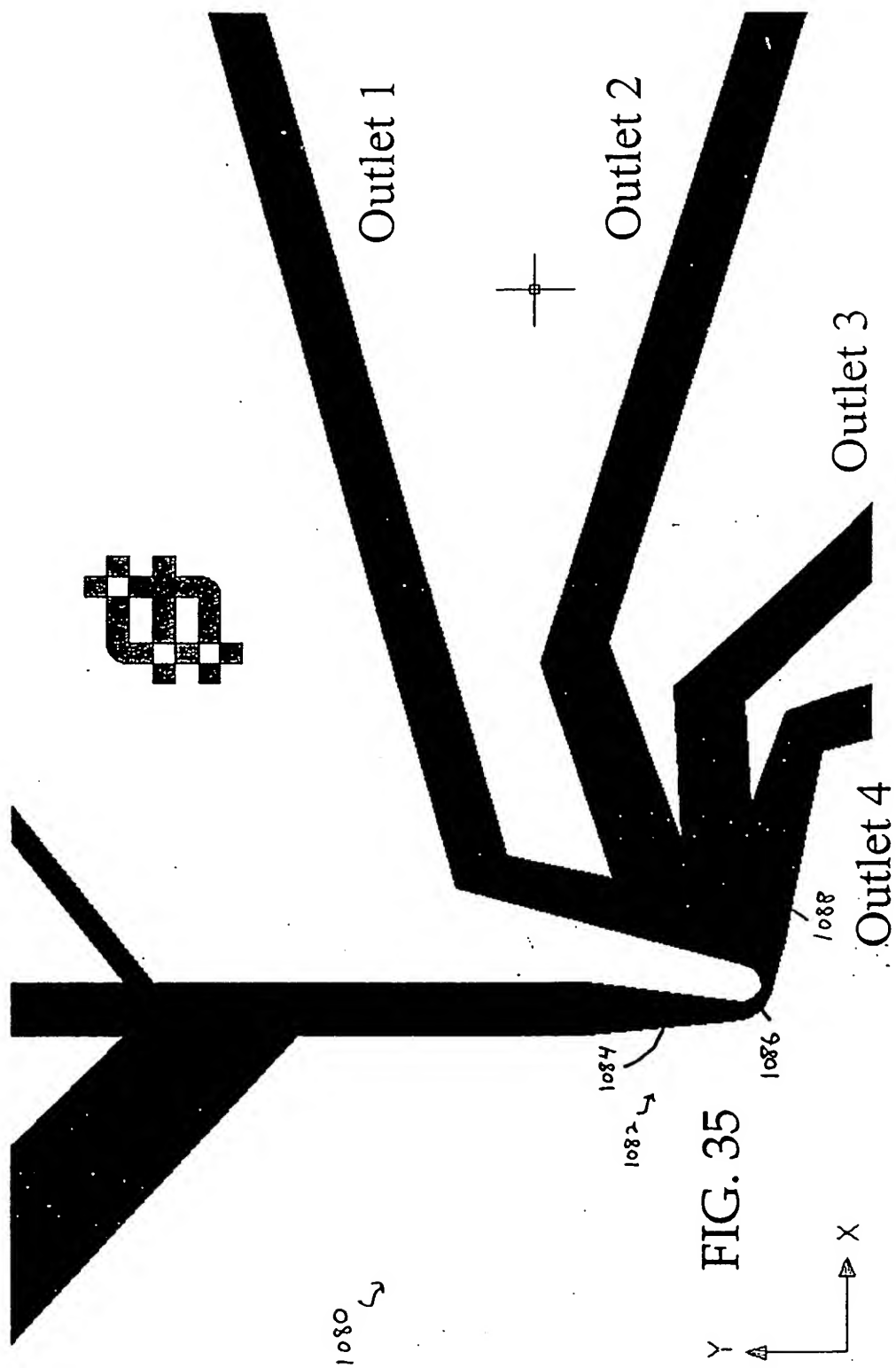


FIG. 35

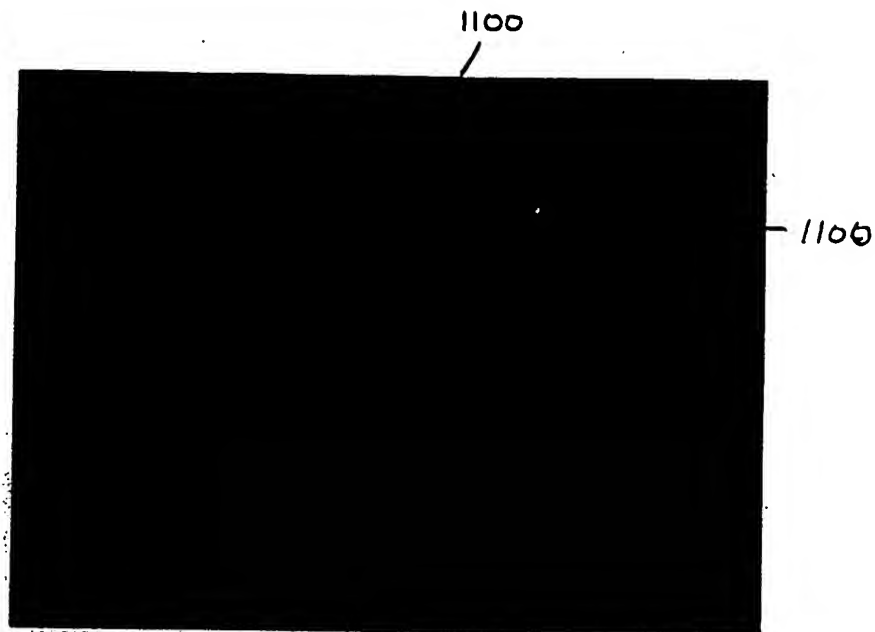


FIG. 36

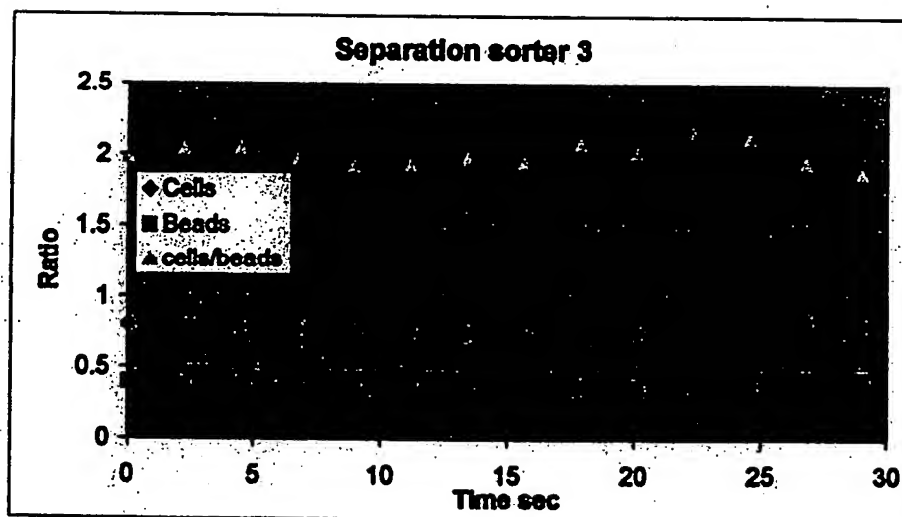


FIG. 37

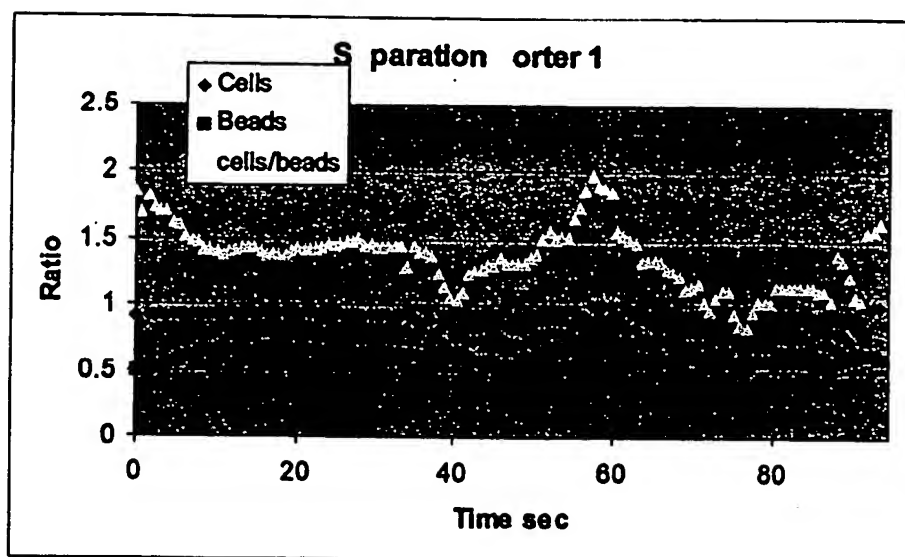


FIG. 38

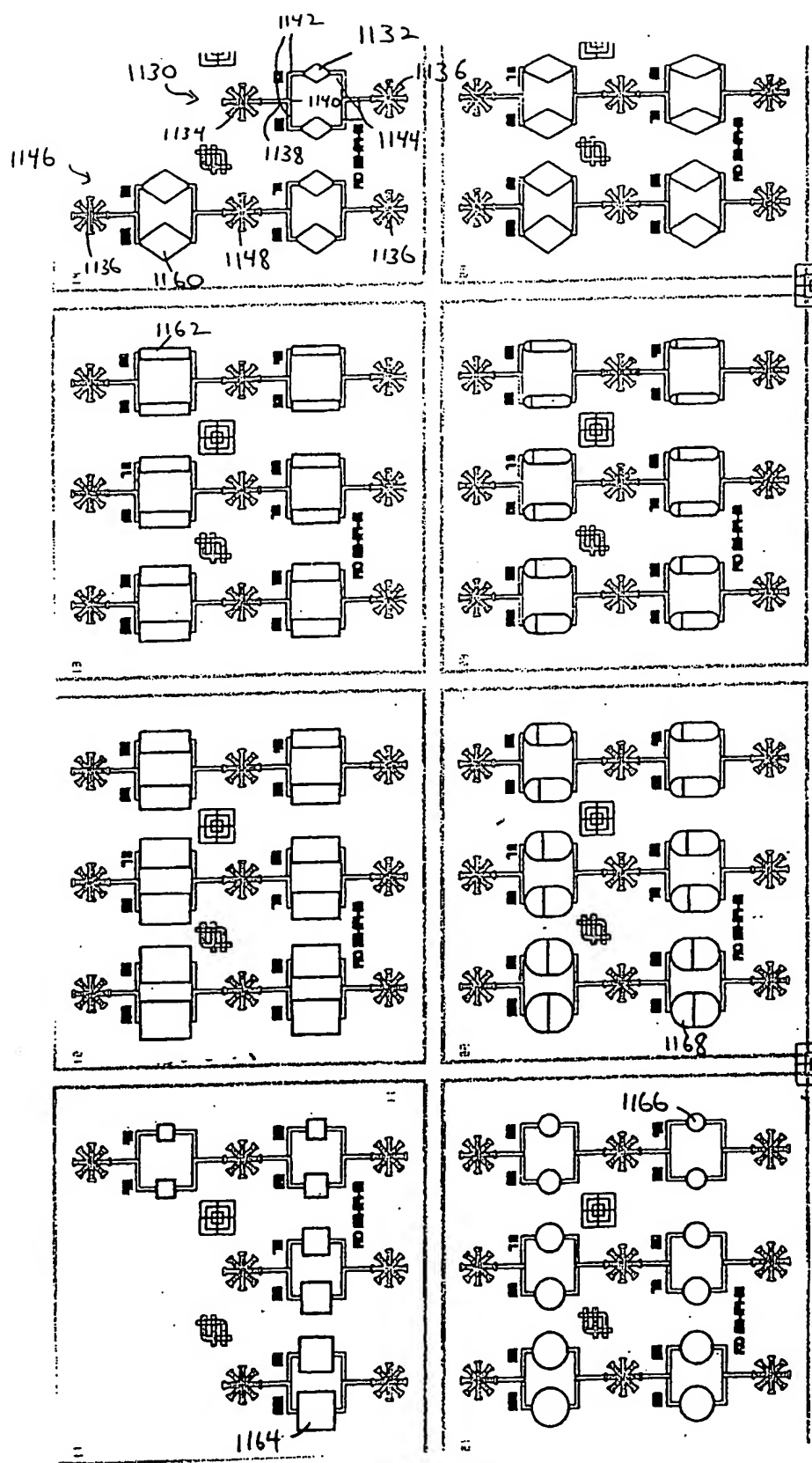
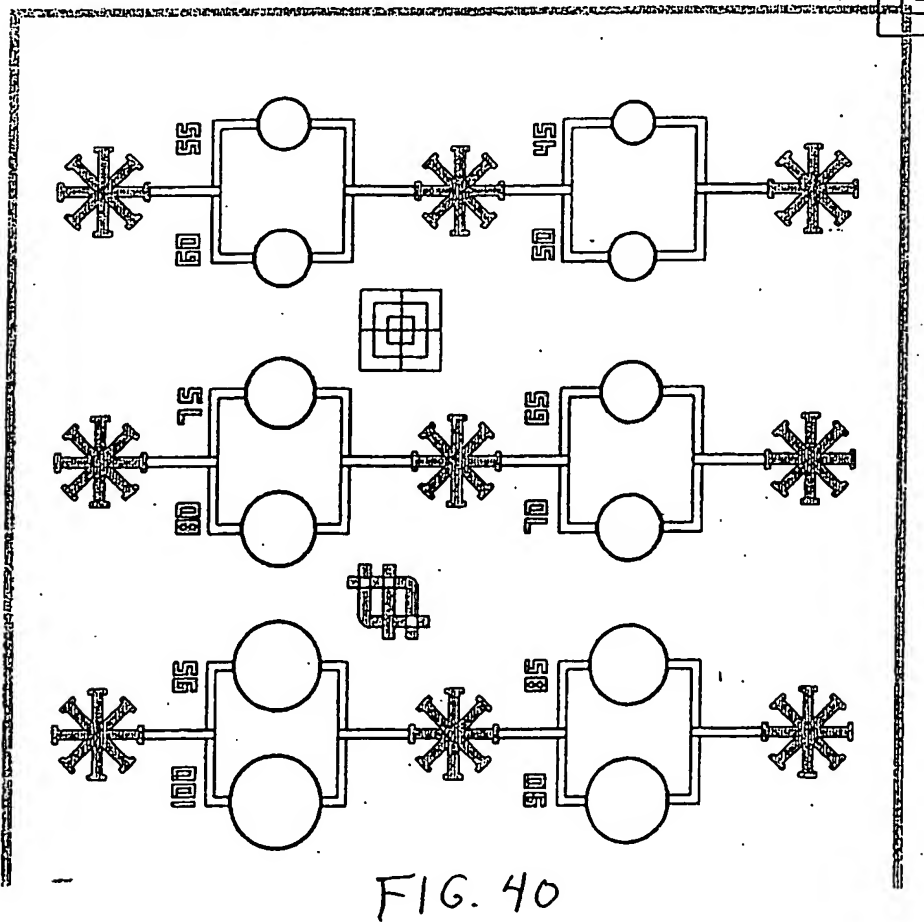
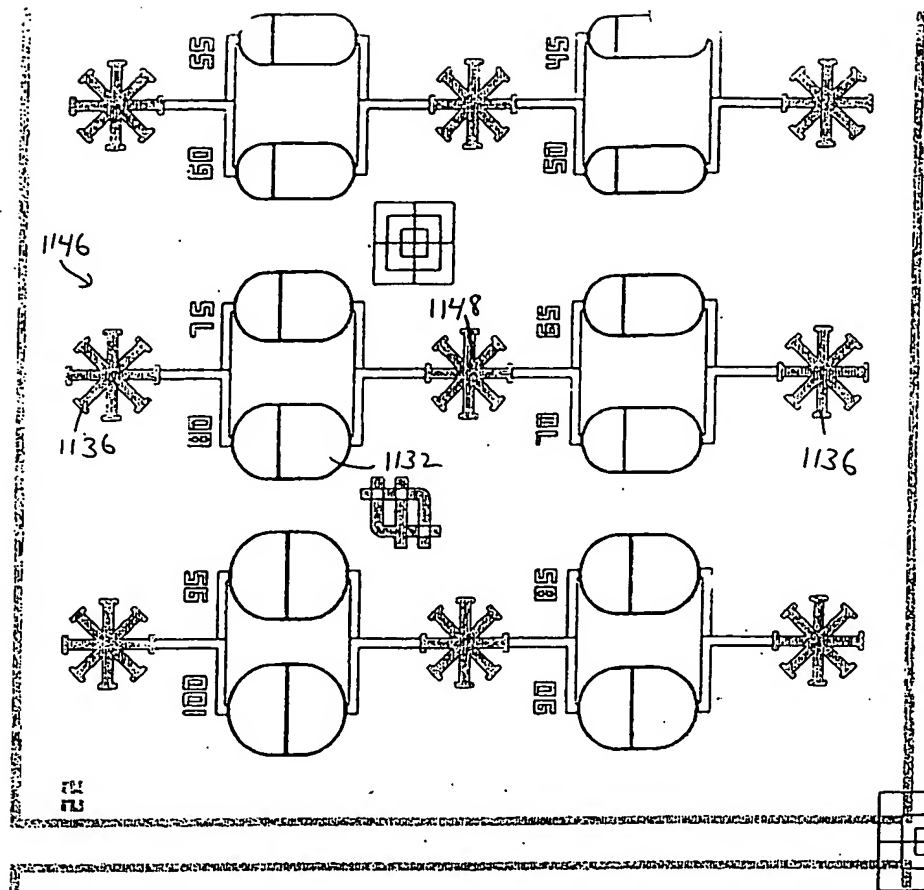


FIG. 39



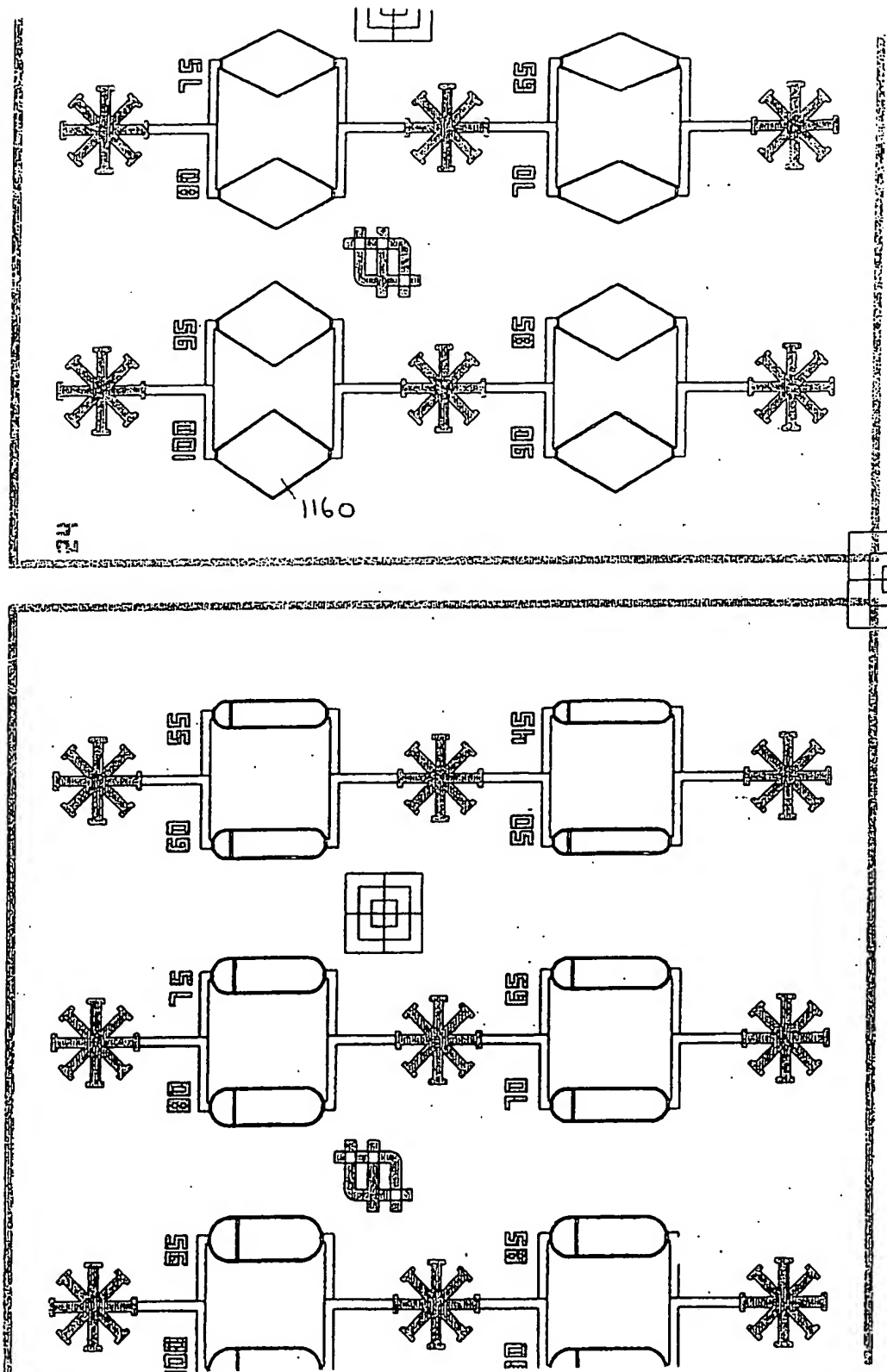


FIG. 41

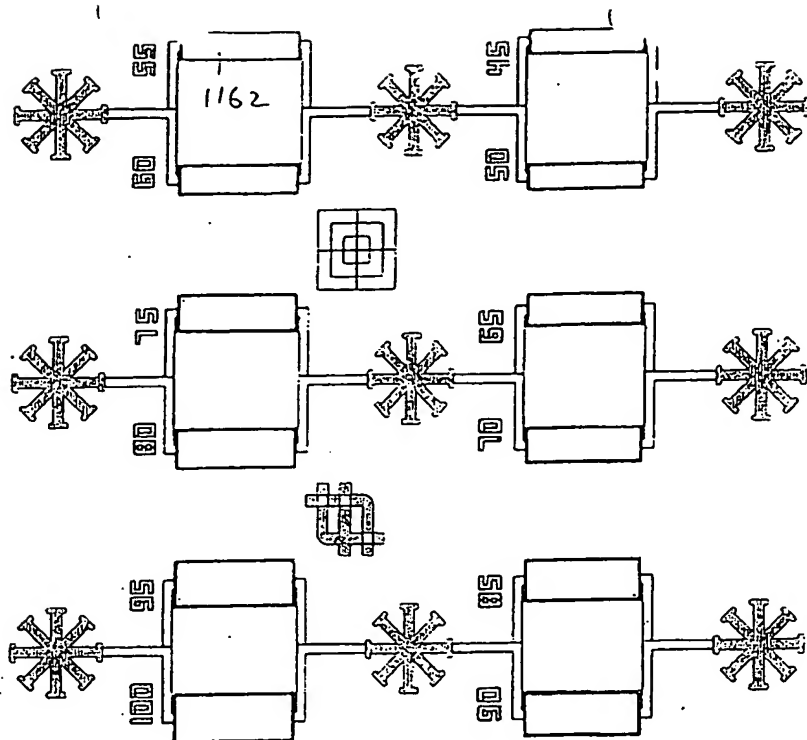


FIG. 41

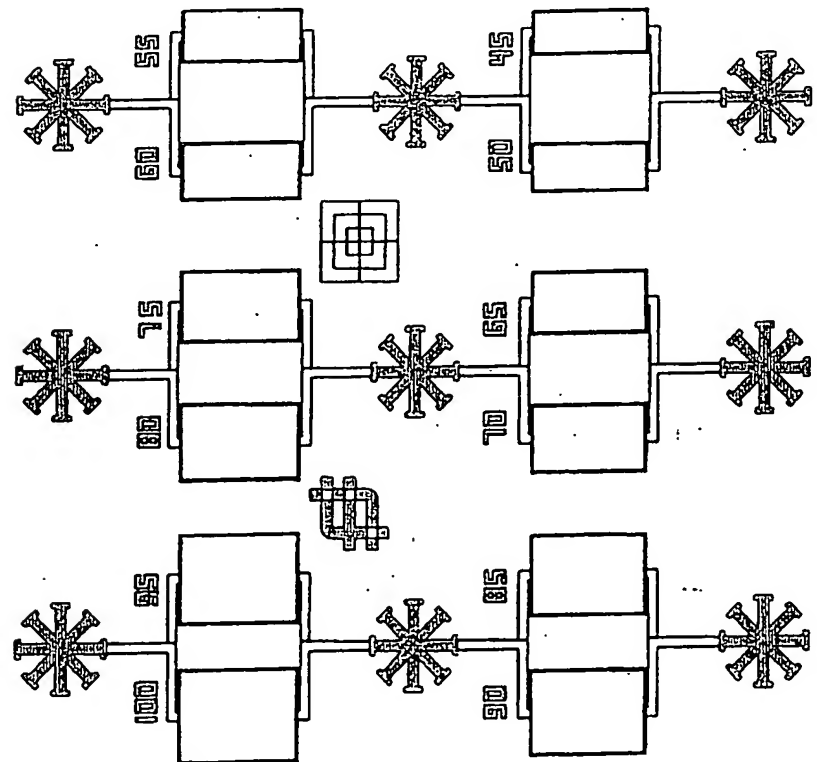


FIG. 42

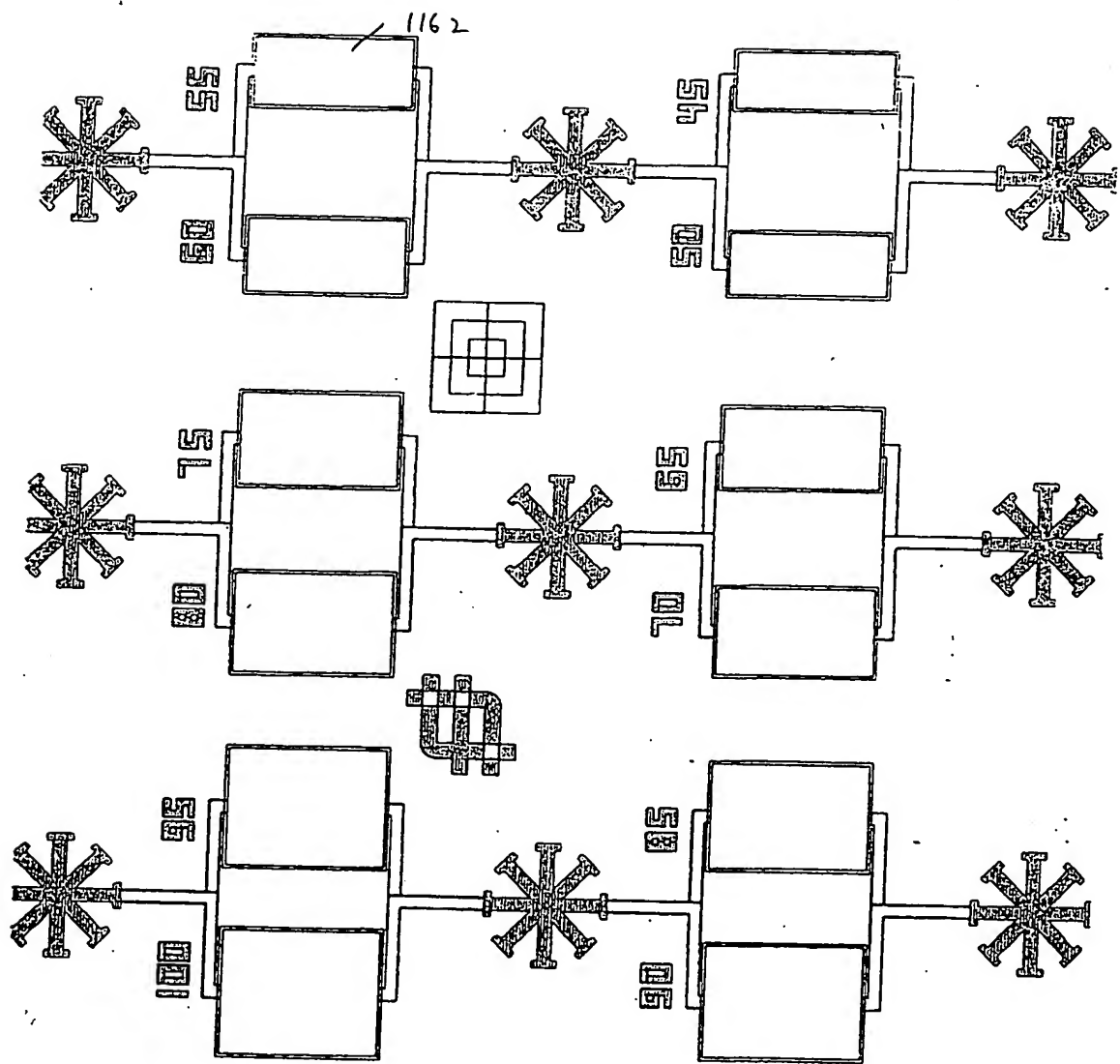


FIG. 43

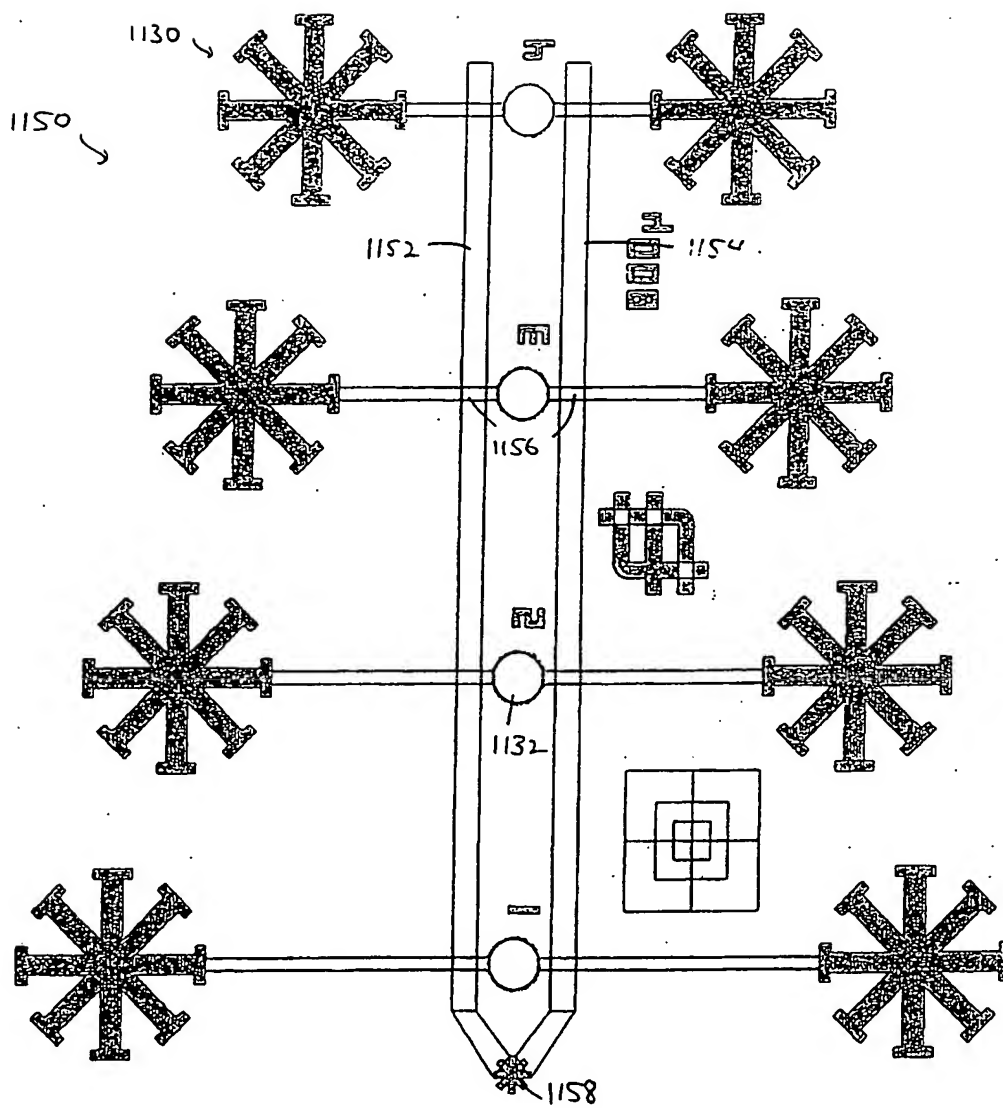


FIG. 44

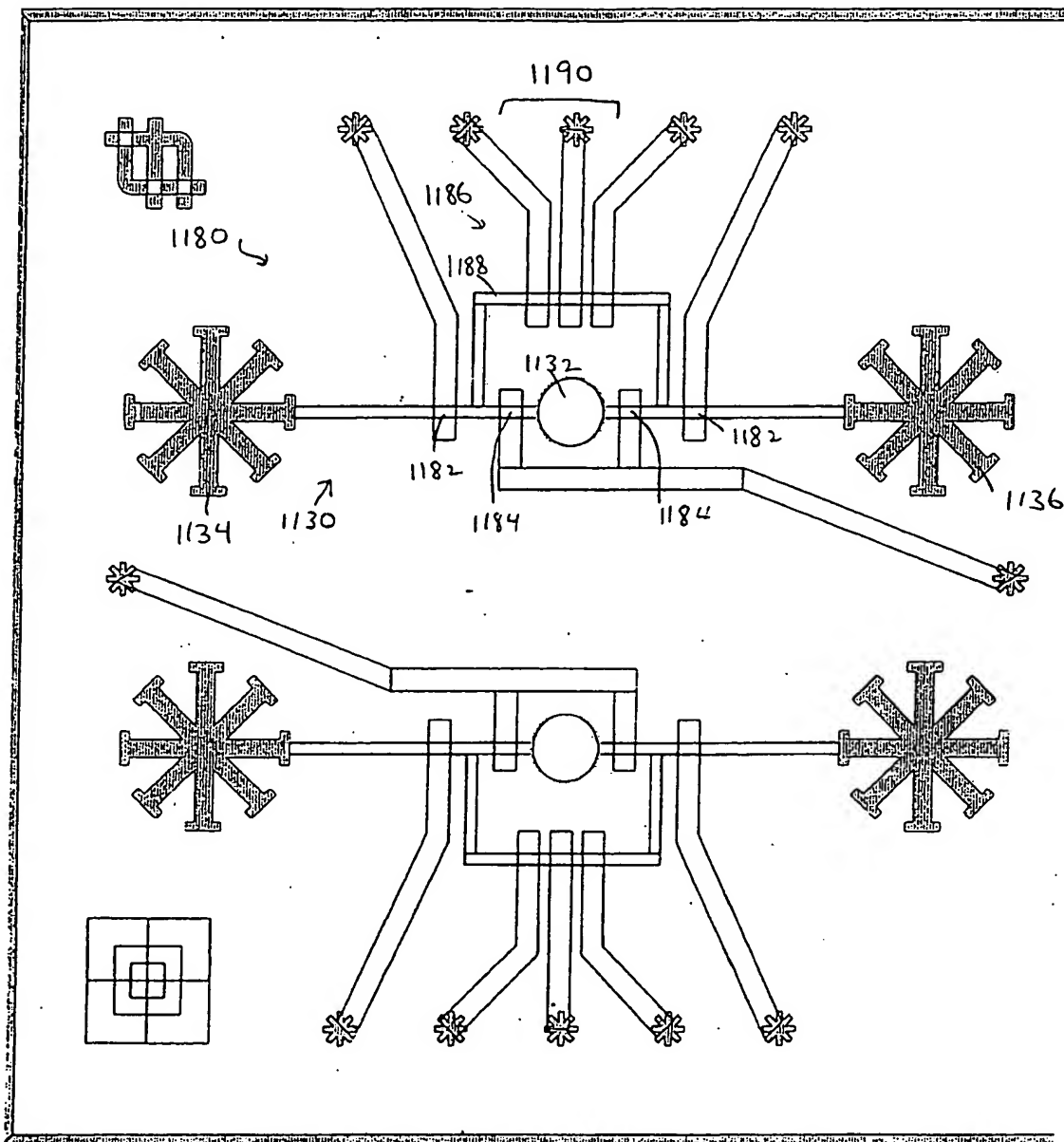


FIG. 45

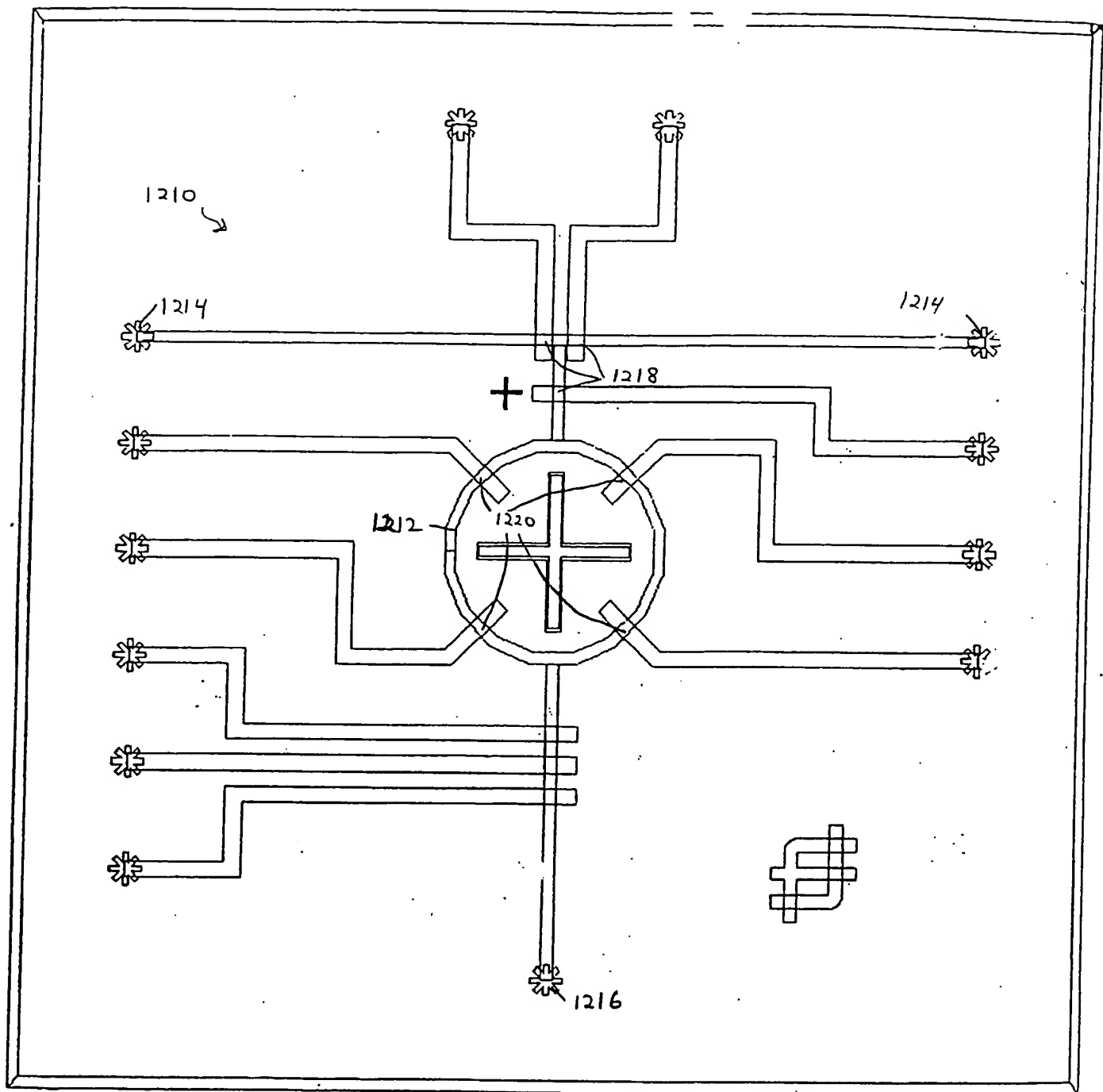


FIG. 46

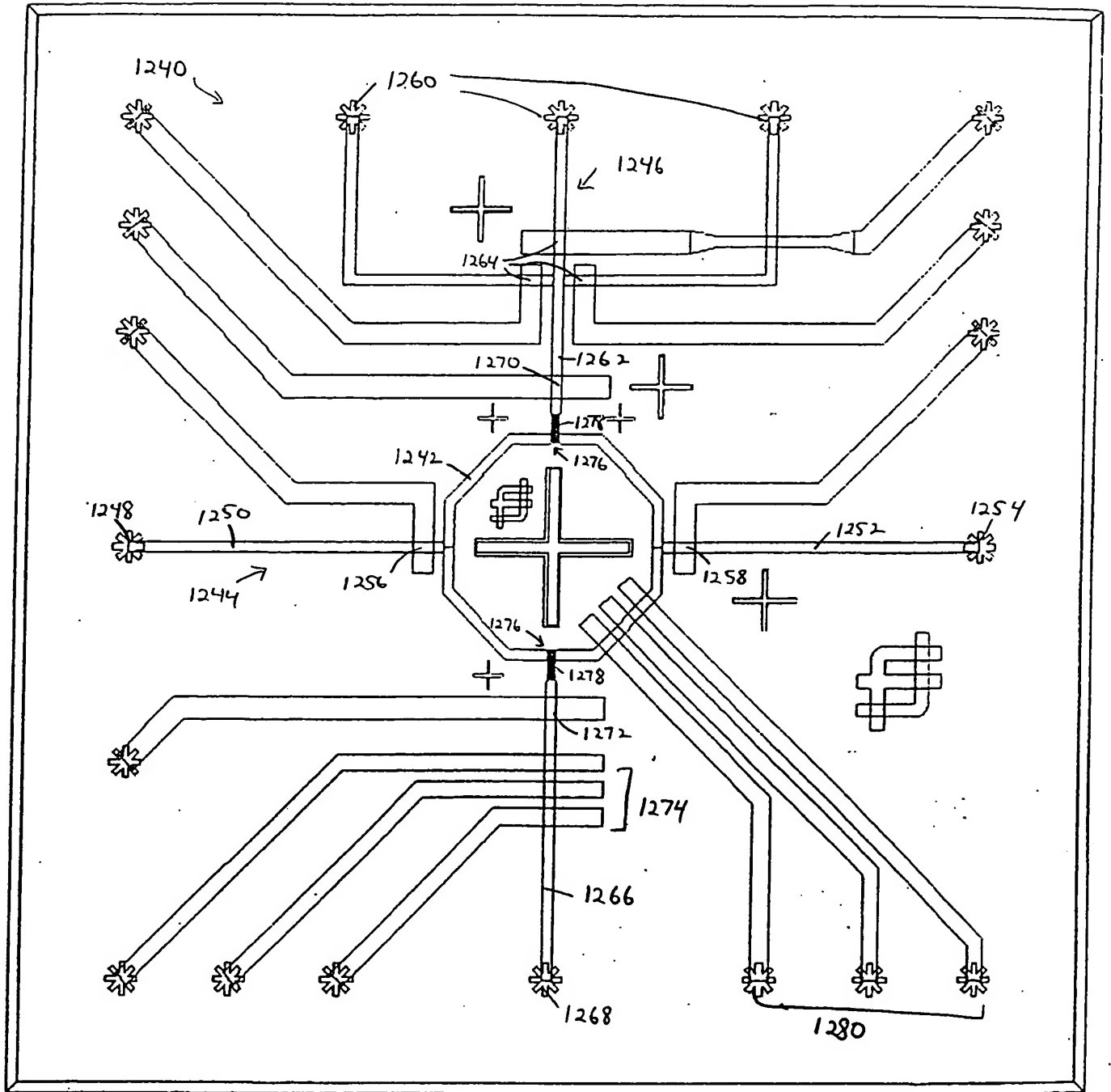


FIG. 47

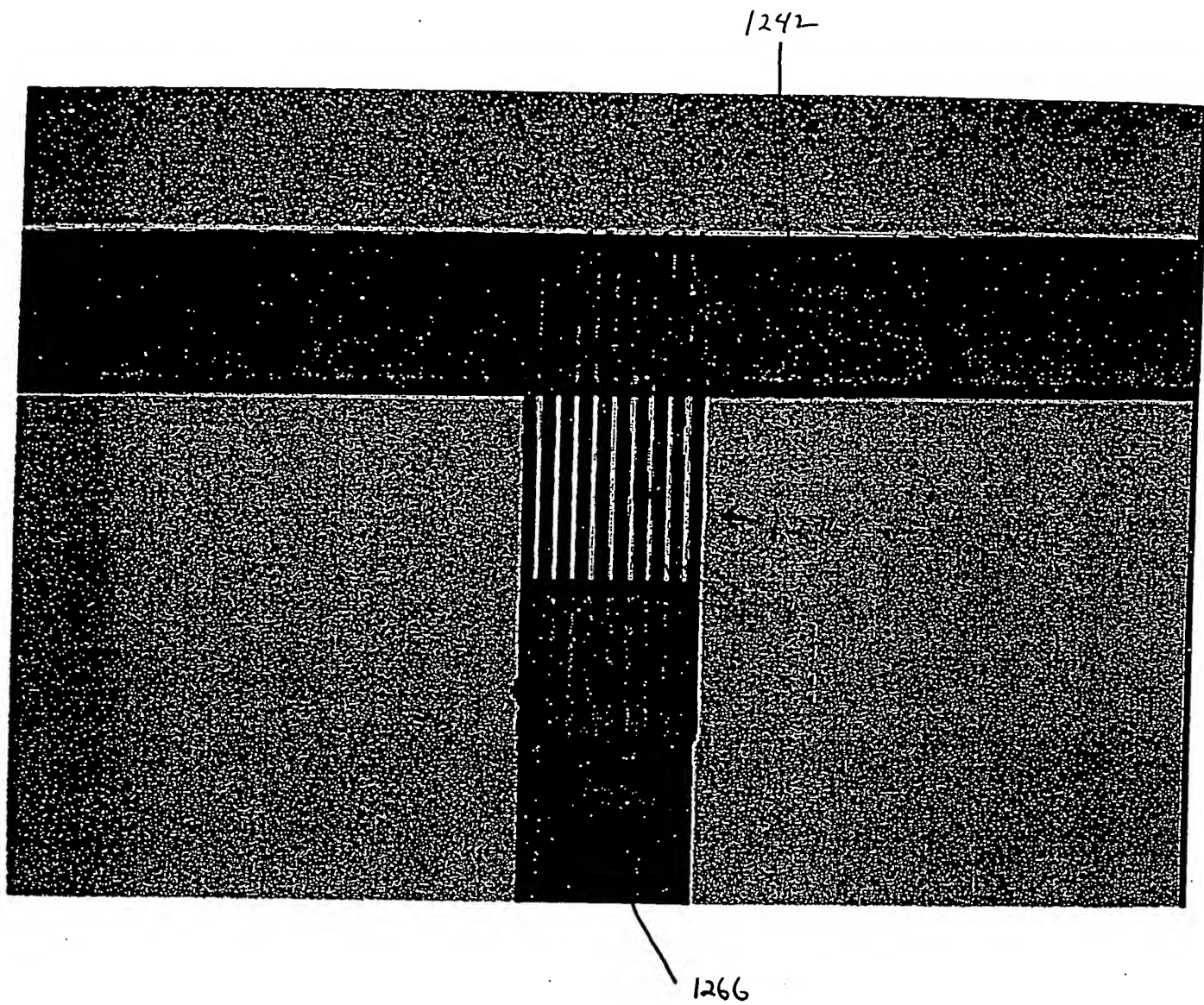


FIG. 48

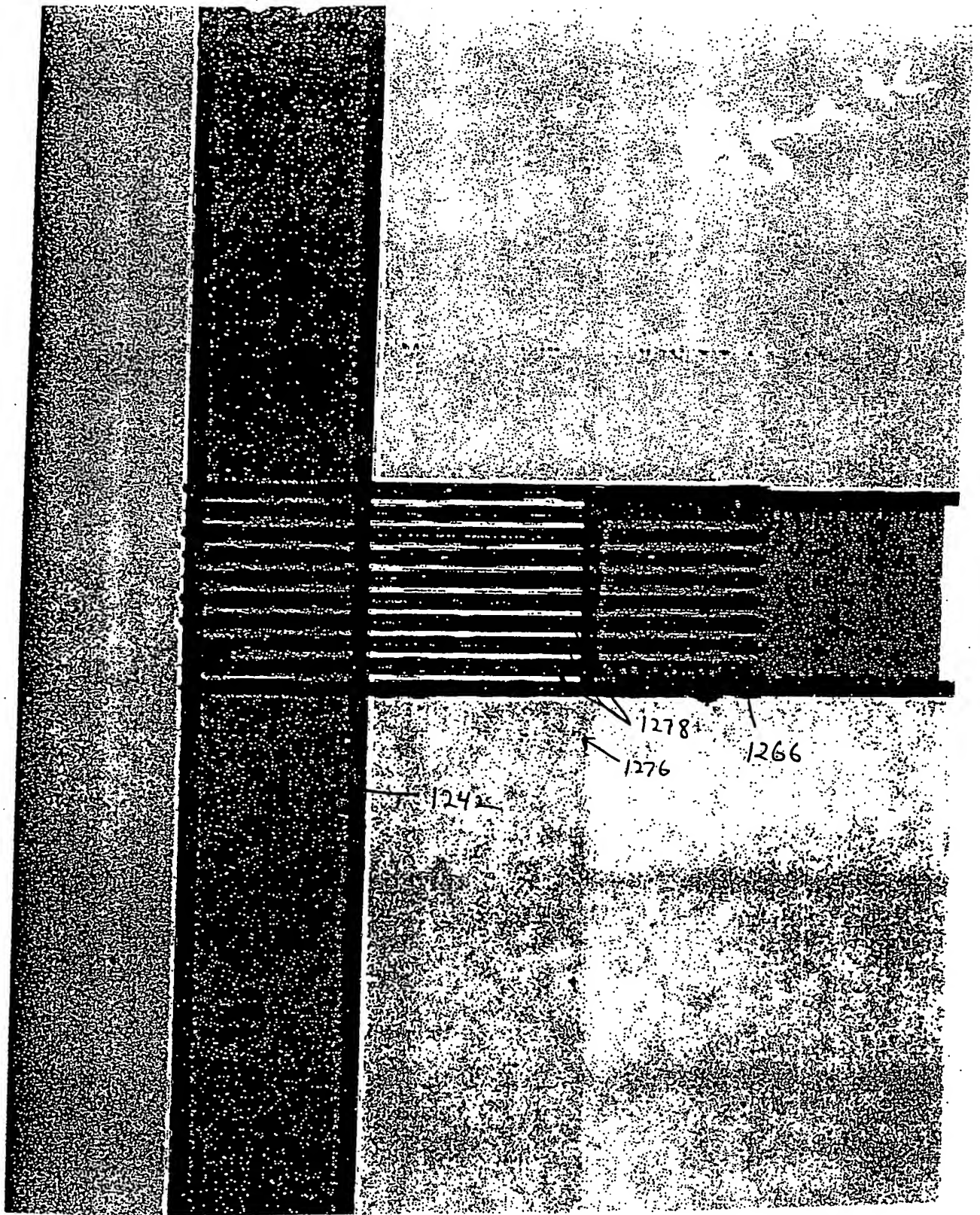


FIG. 49

1242

1290

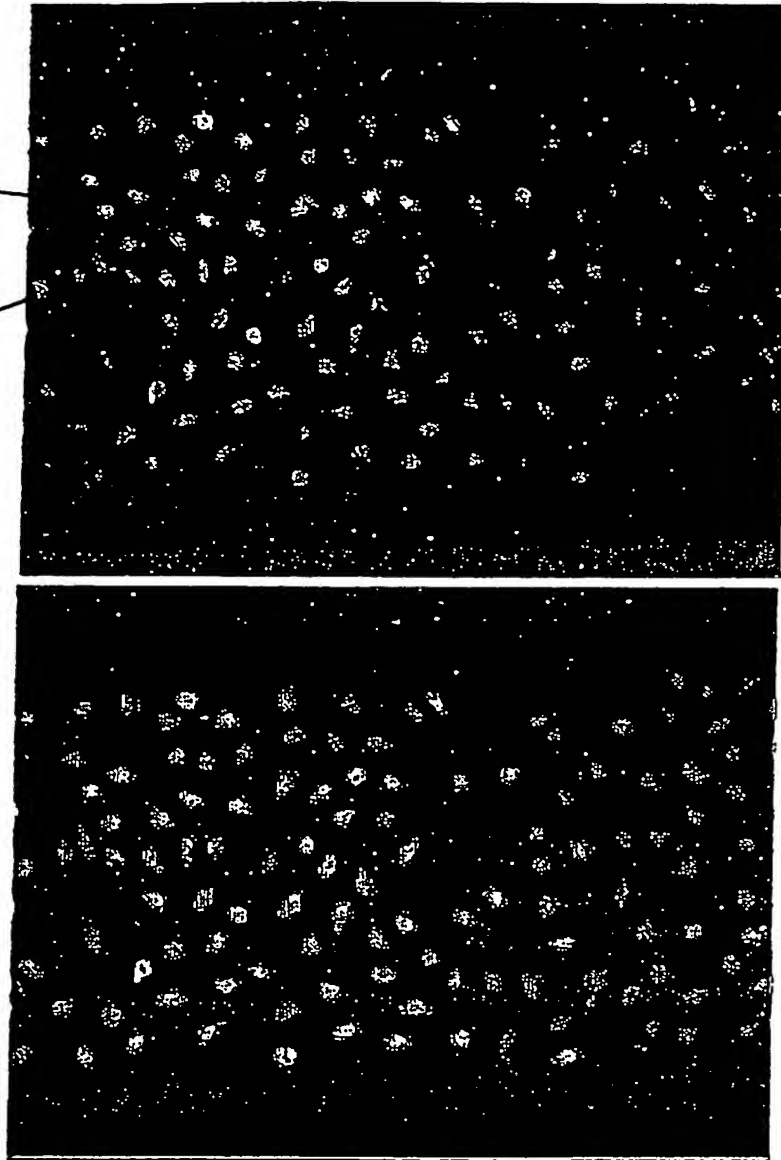
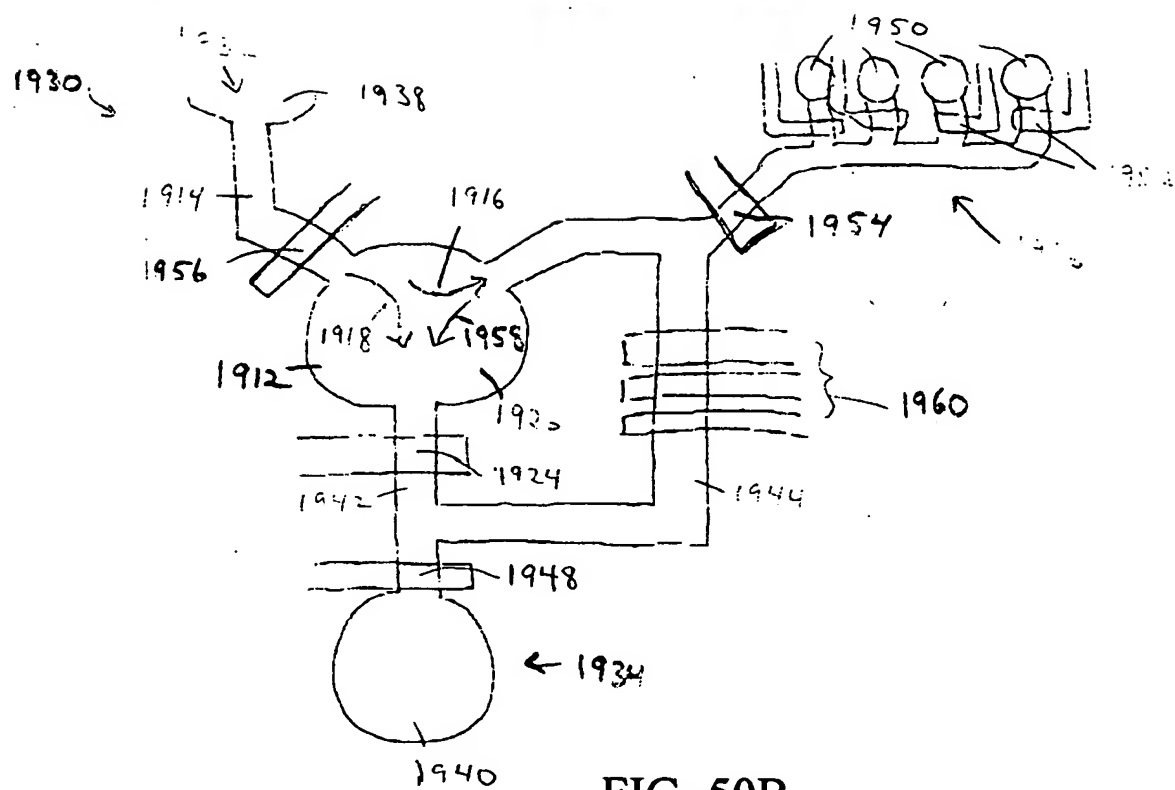
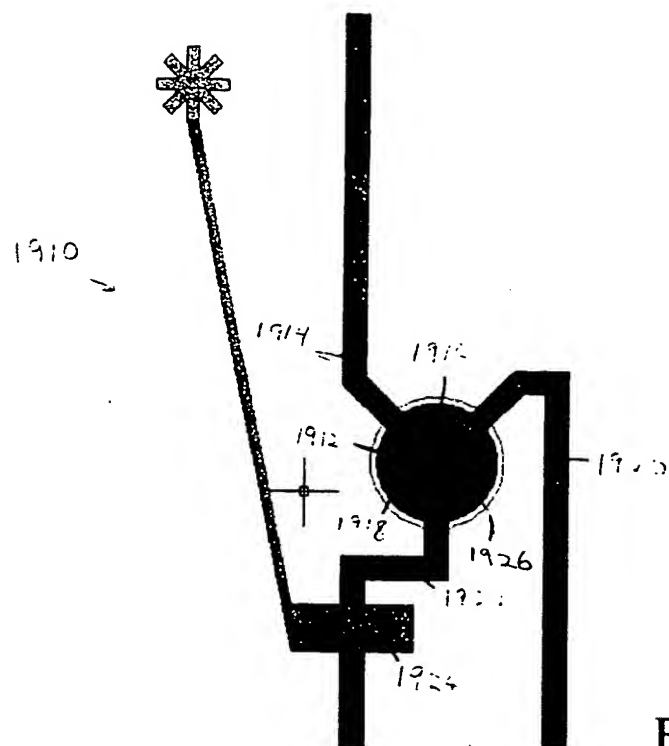


FIG. 50



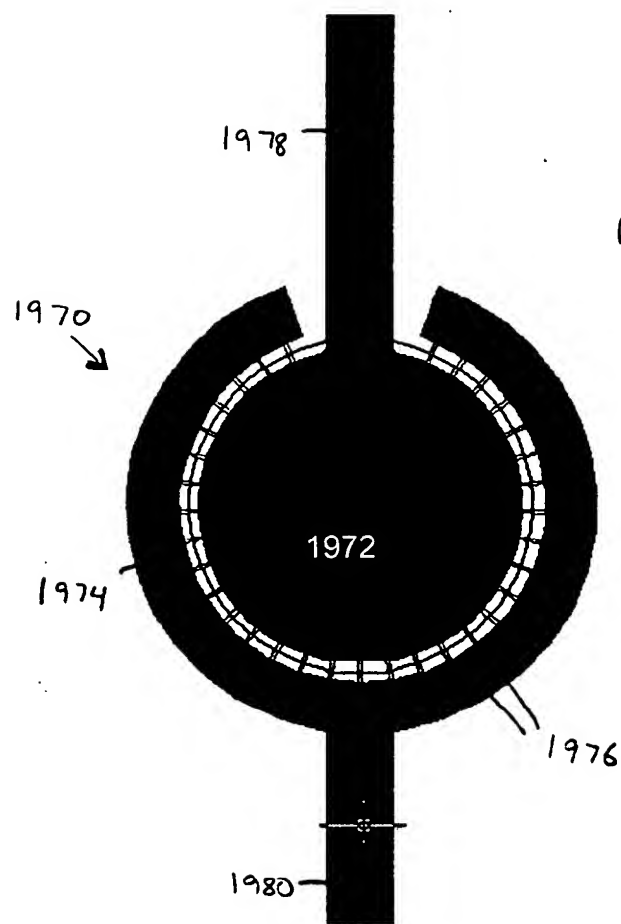


FIG. 50C

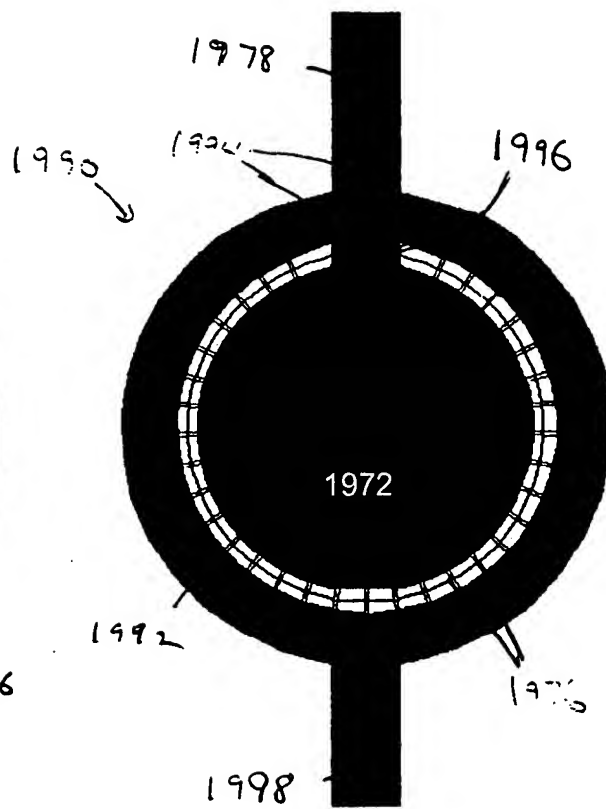


FIG. 50D

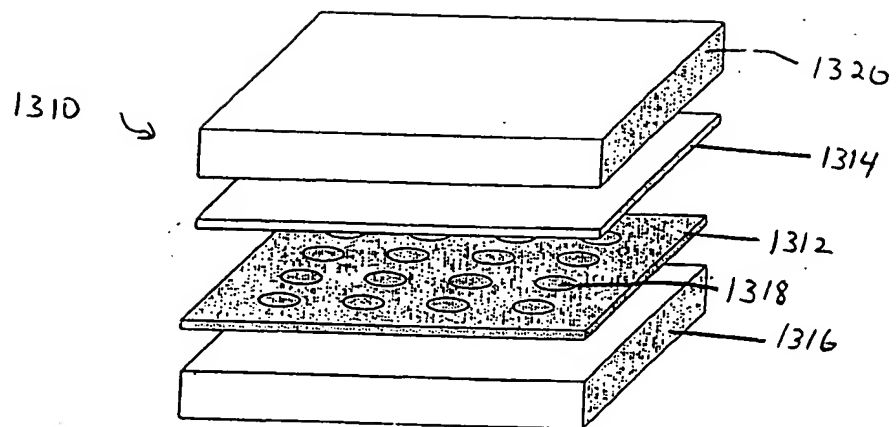


FIG. 51

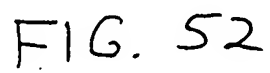


FIG. 52

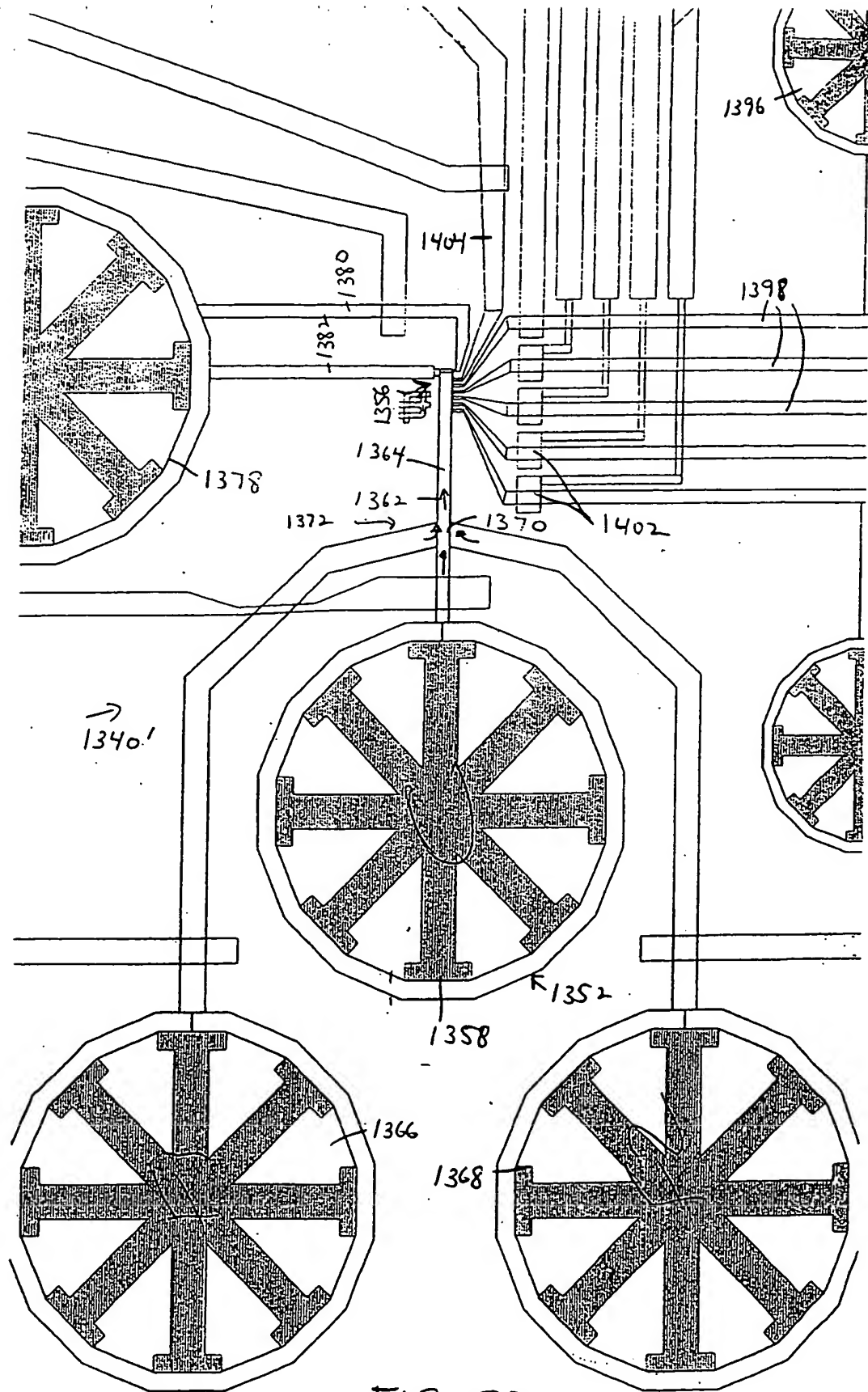


FIG. 53

(mm)

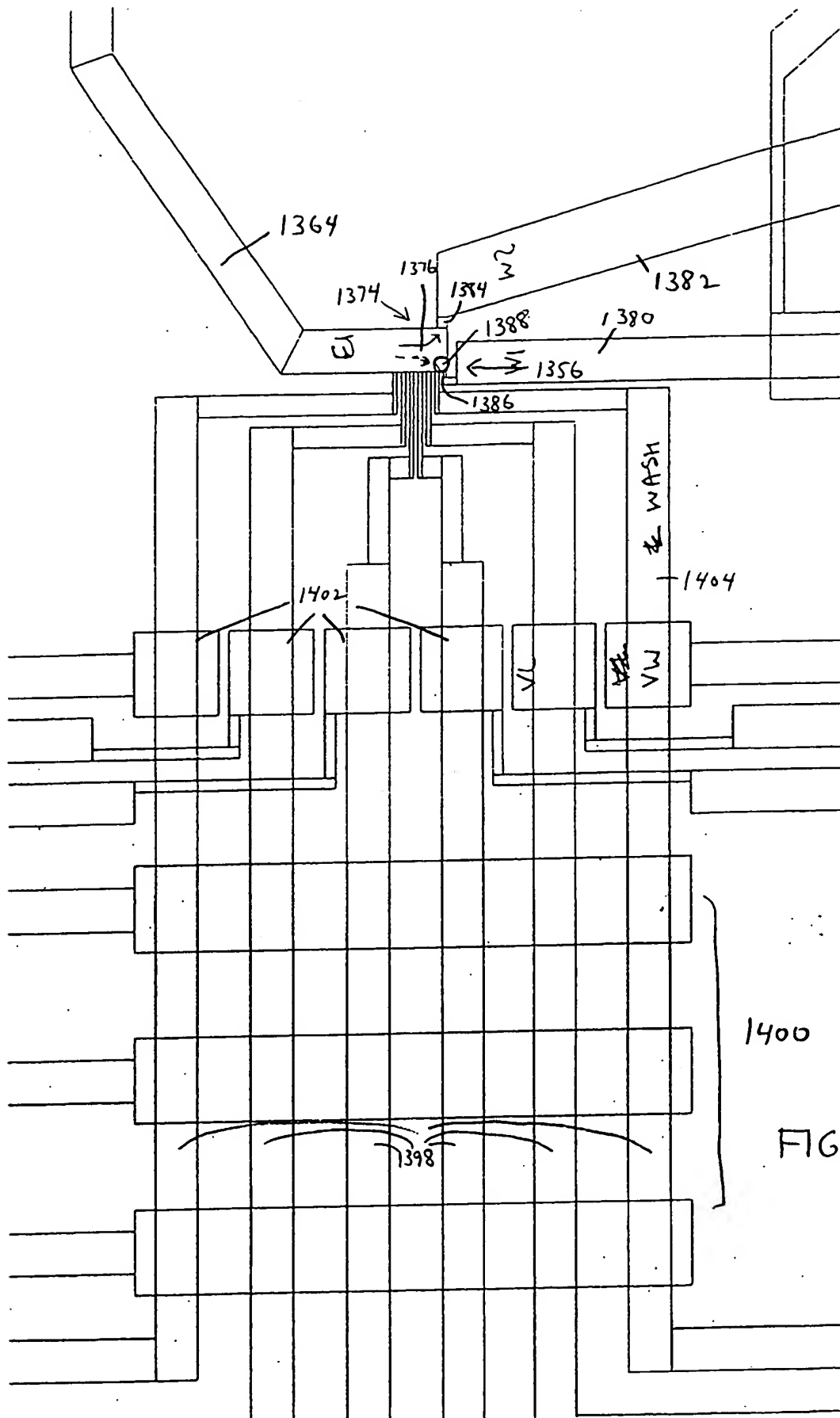
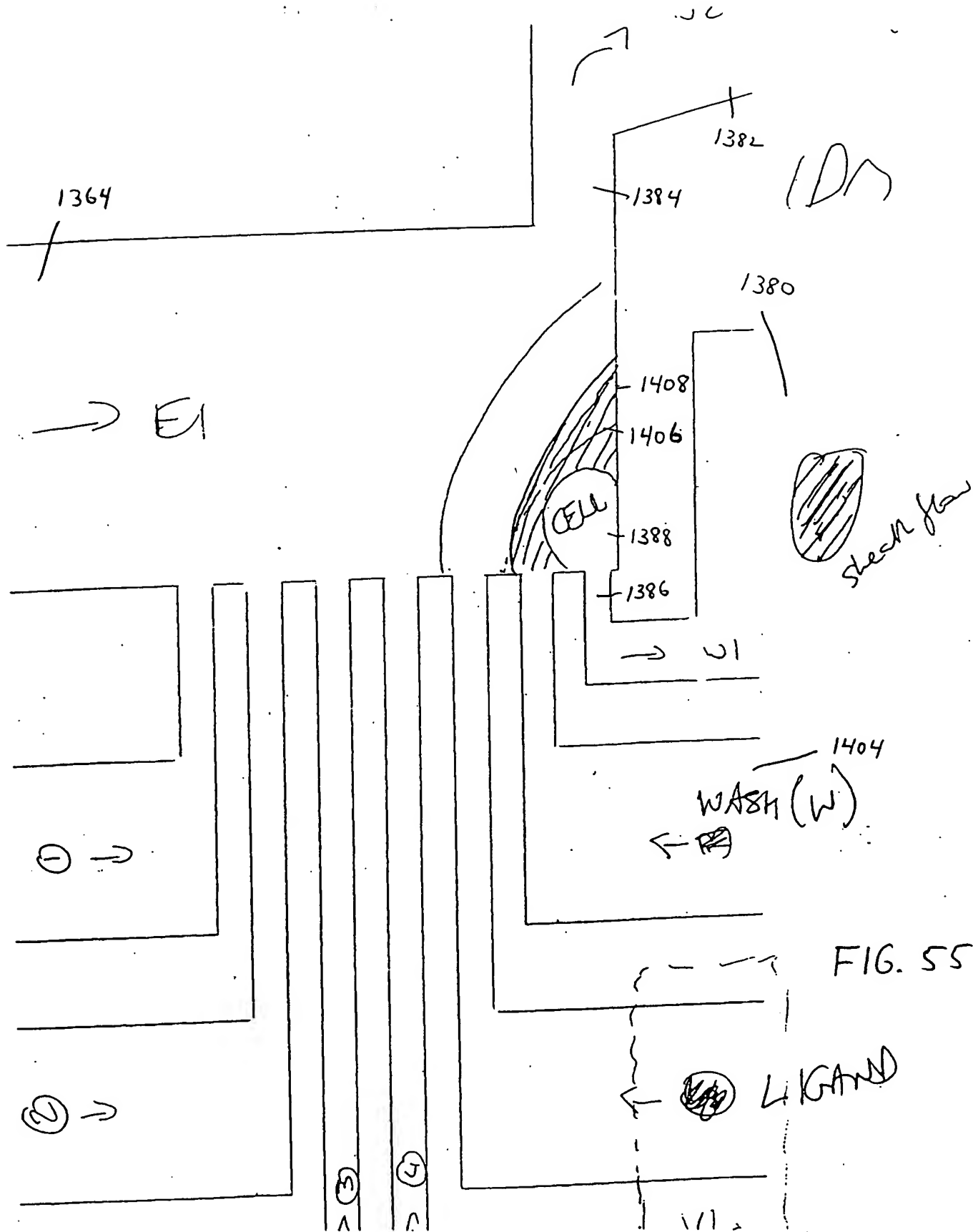


FIG. 54



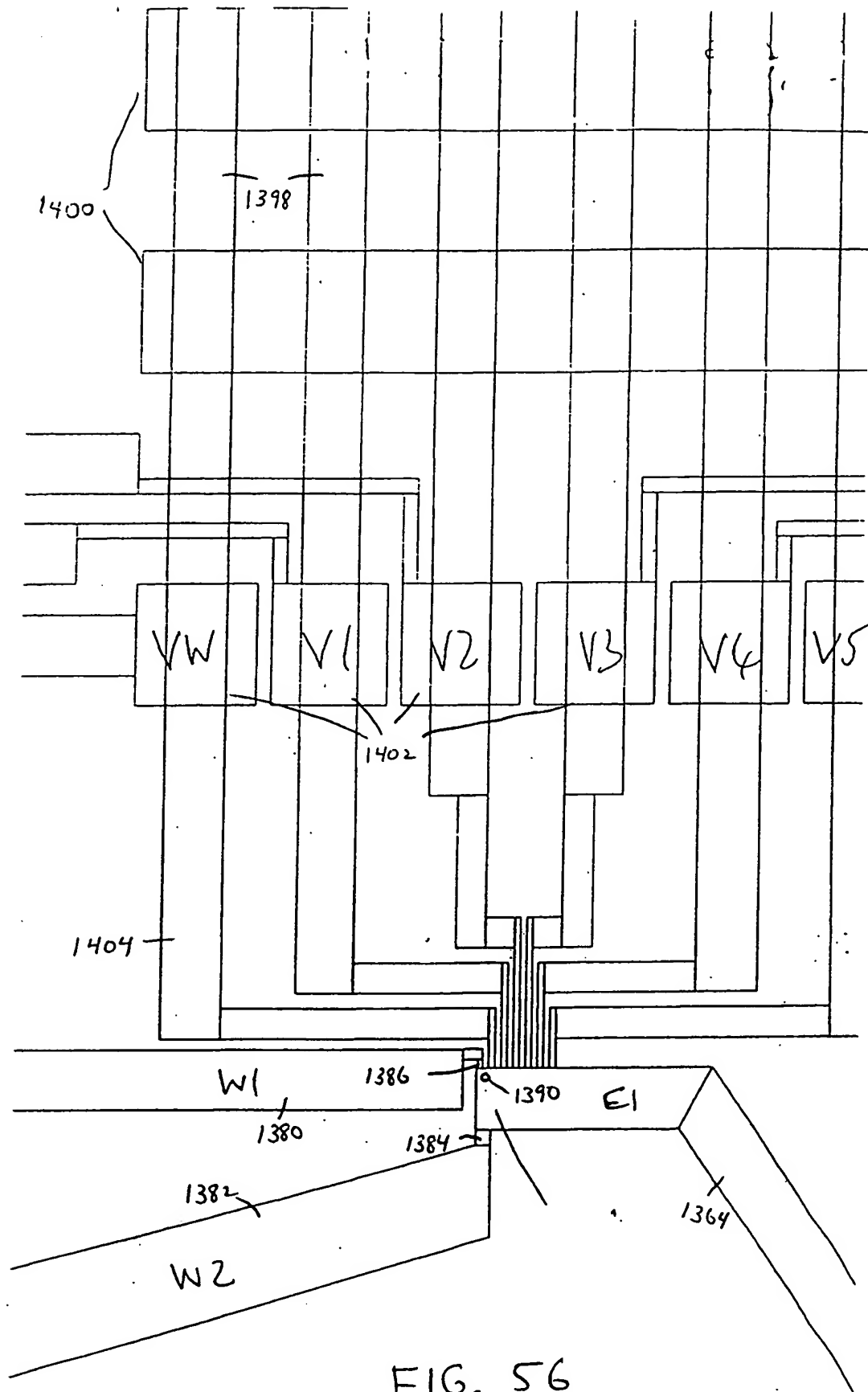


FIG. 56

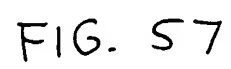


FIG. 57

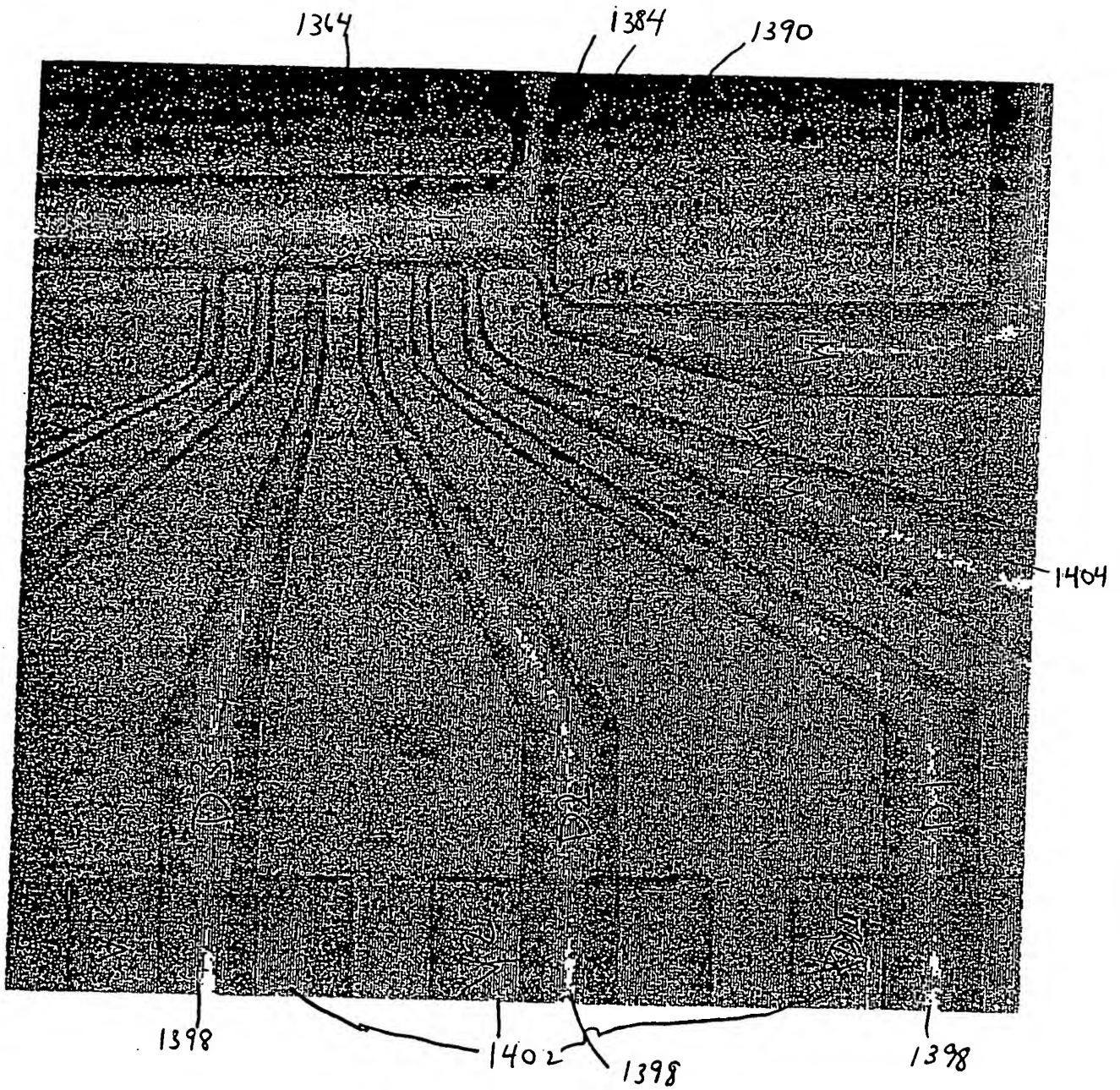


FIG. 58

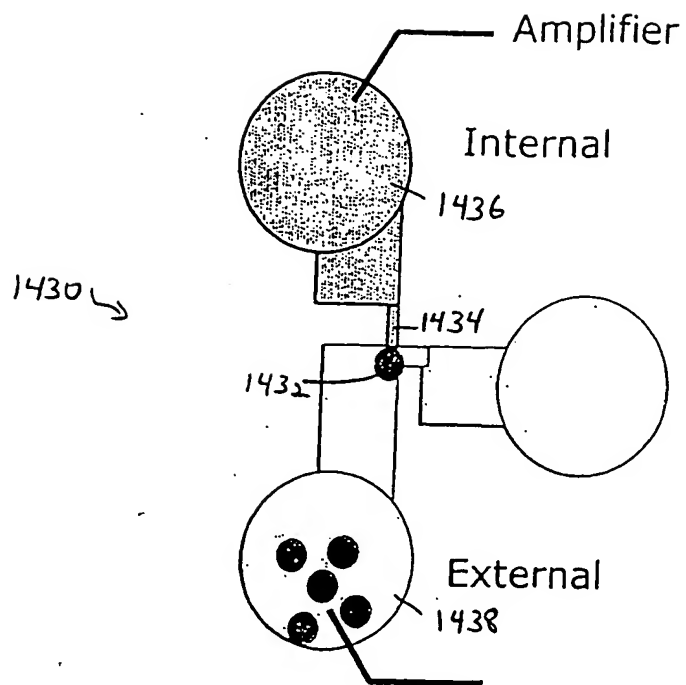
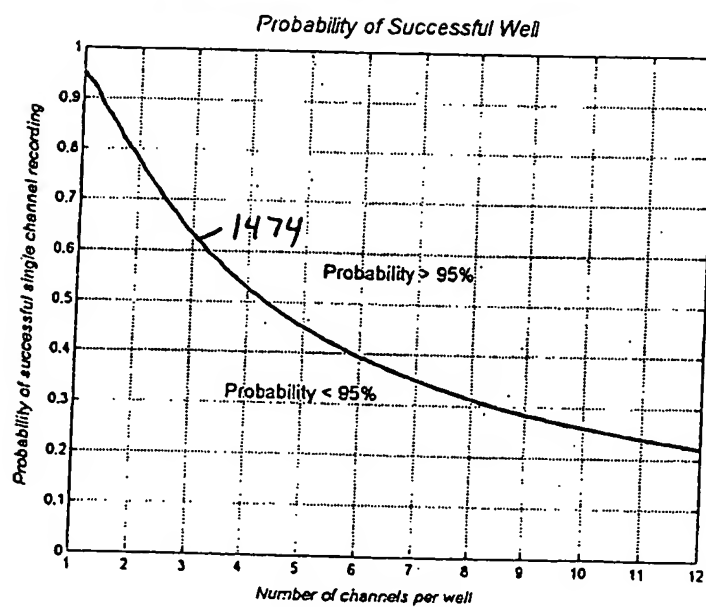
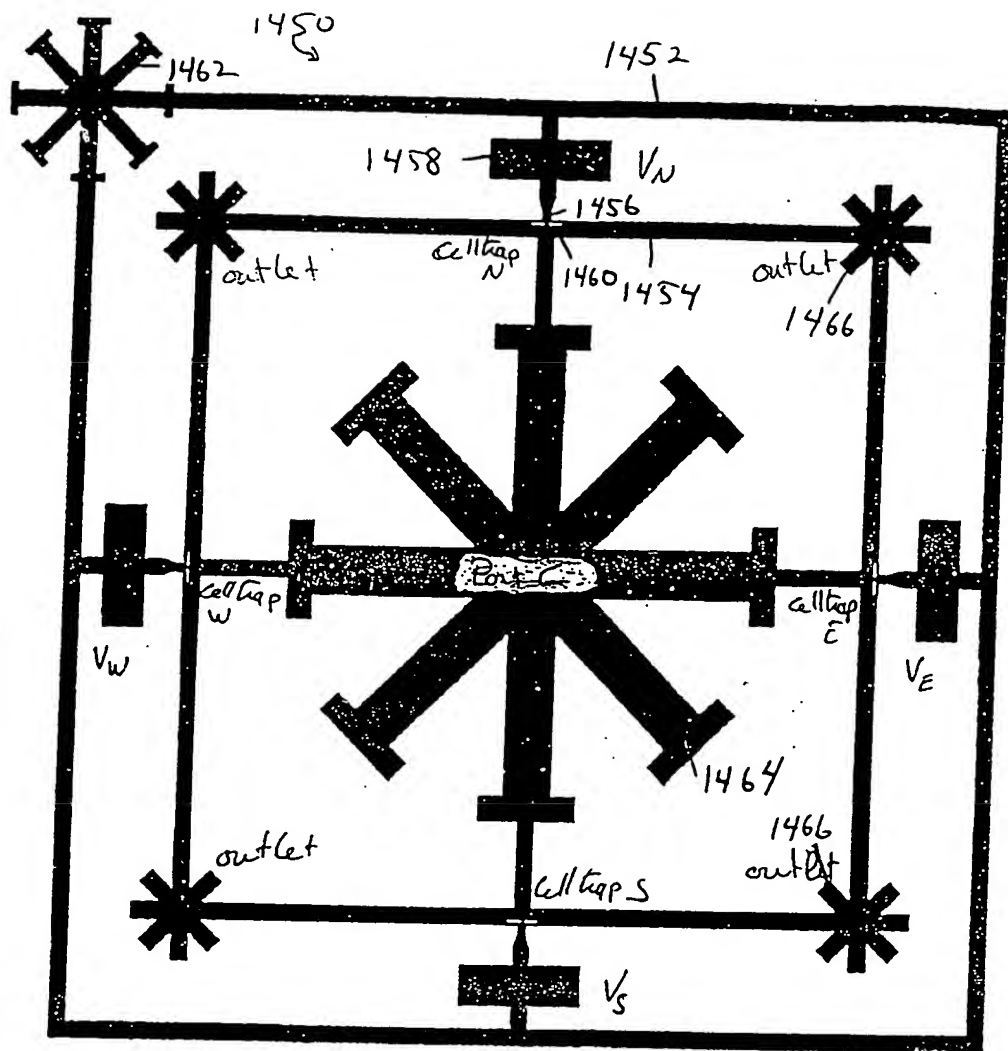


FIG. 59



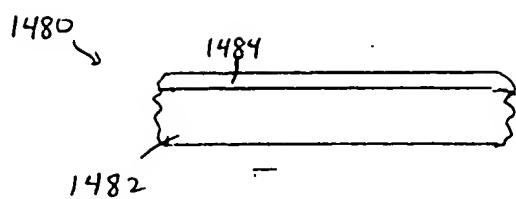


FIG. 62

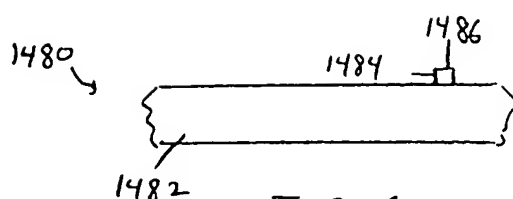


FIG. 63

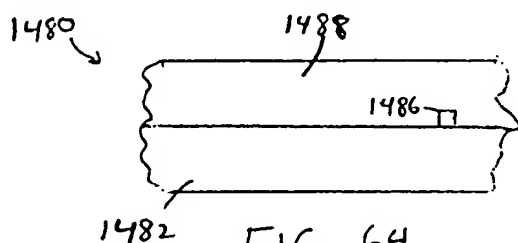


FIG. 64

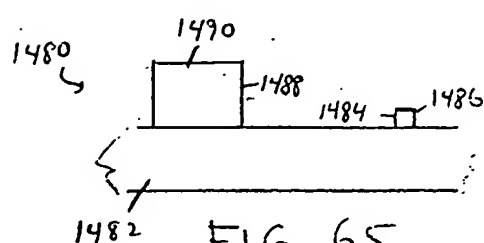


FIG. 65

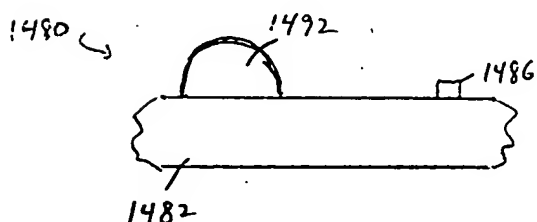


FIG. 66

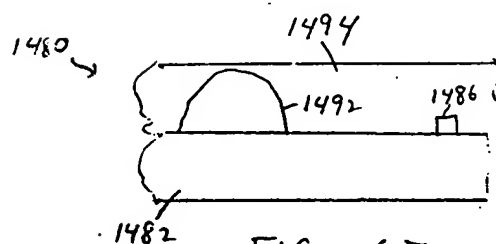


FIG. 67

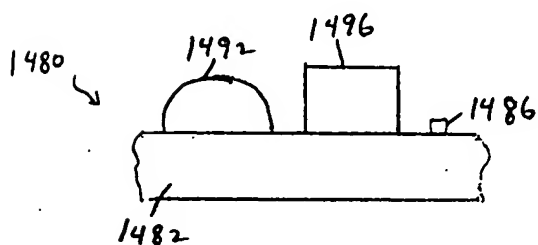


FIG. 68

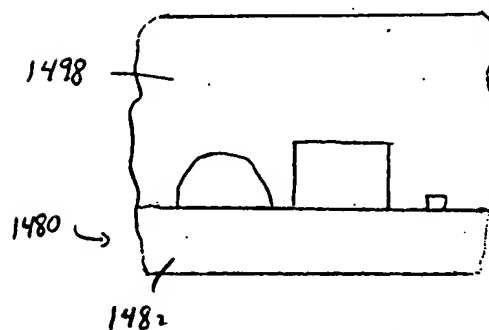


FIG. 69

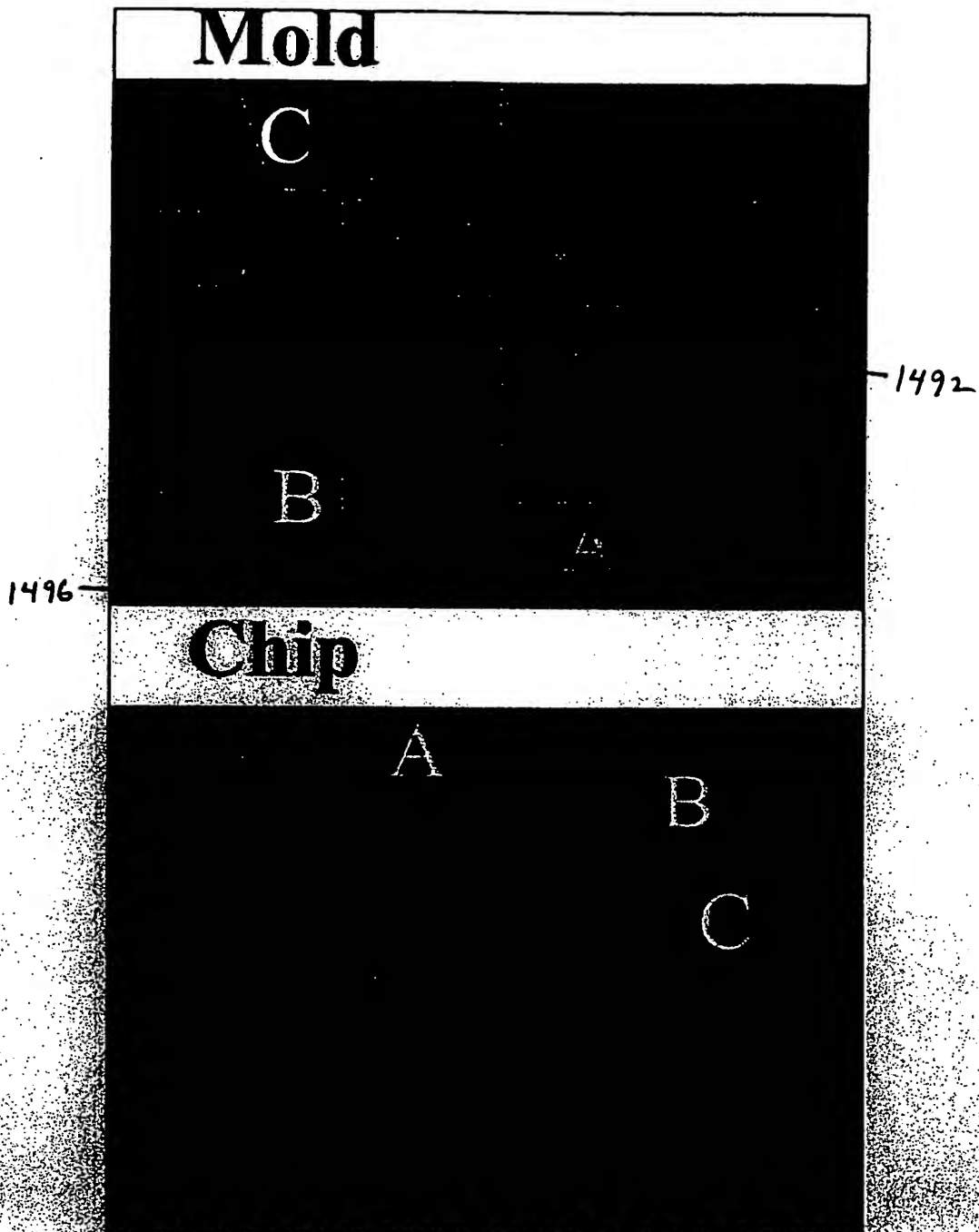
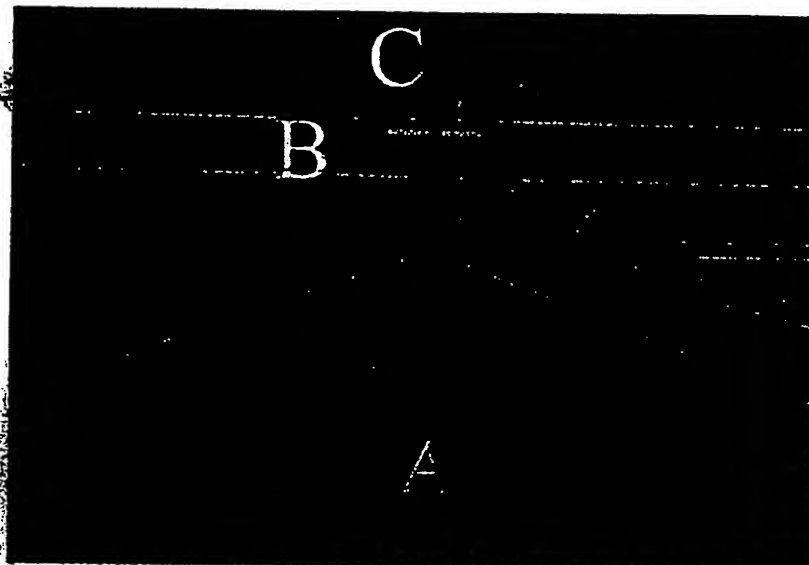


Figure 70

Mold



Chip

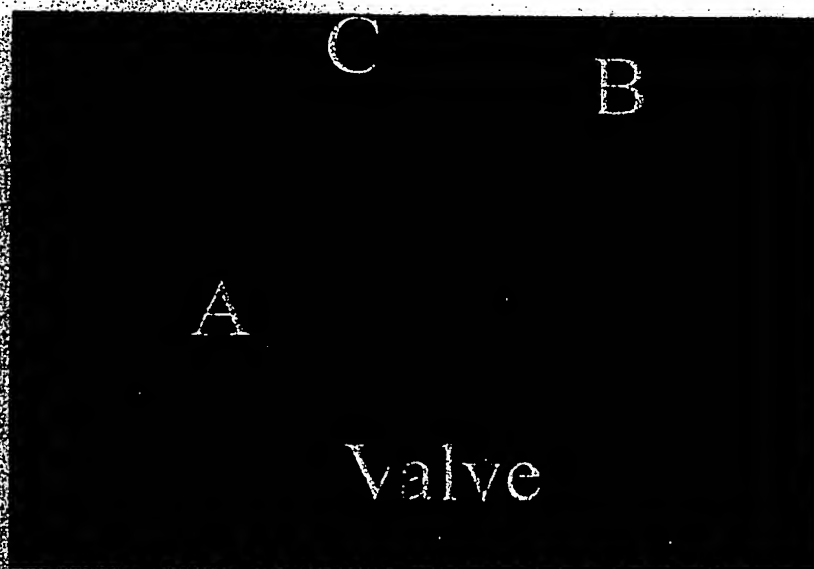


Figure 71

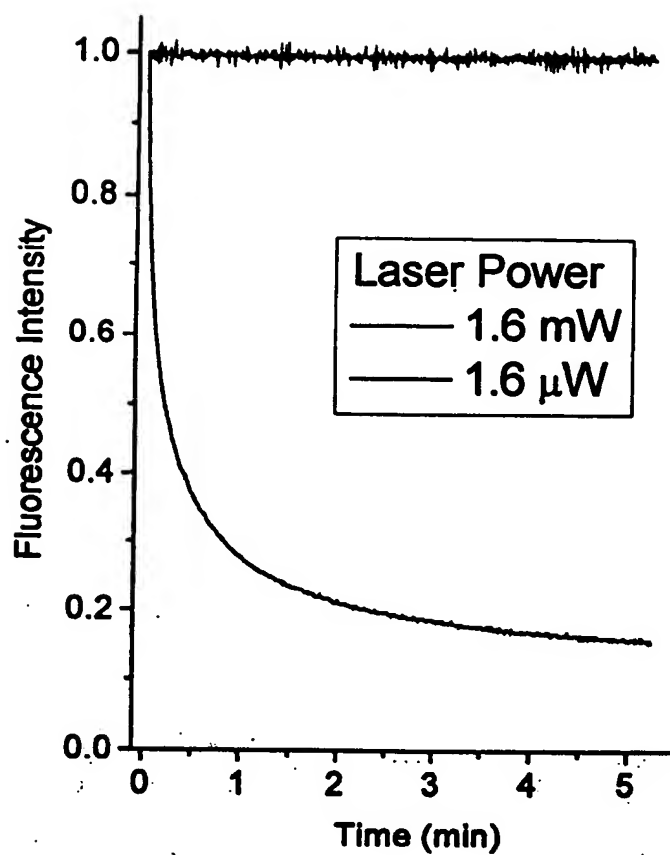


FIG. 71A



FIG. 71B

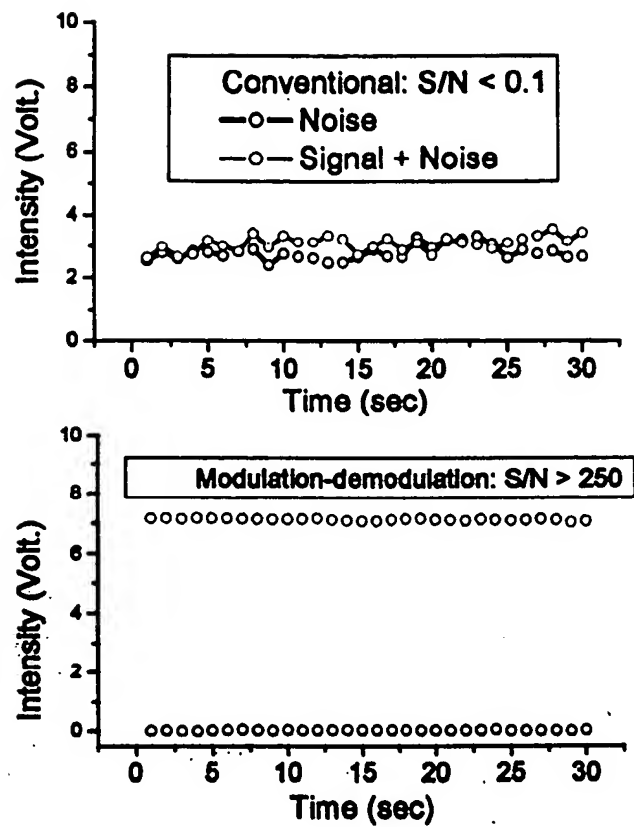


FIG. 71C

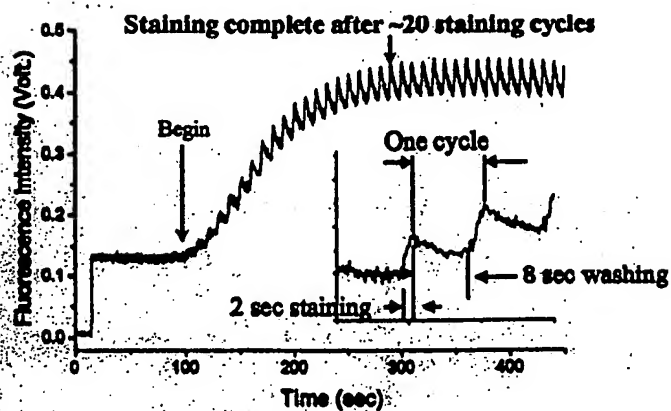


FIG. 71D

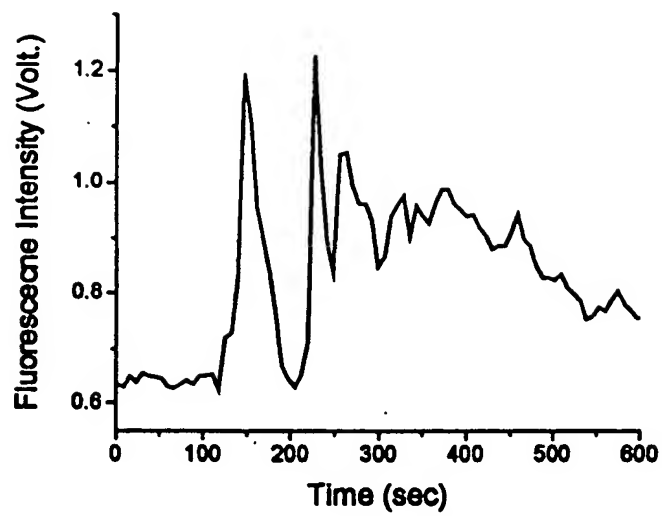


FIG. 71E

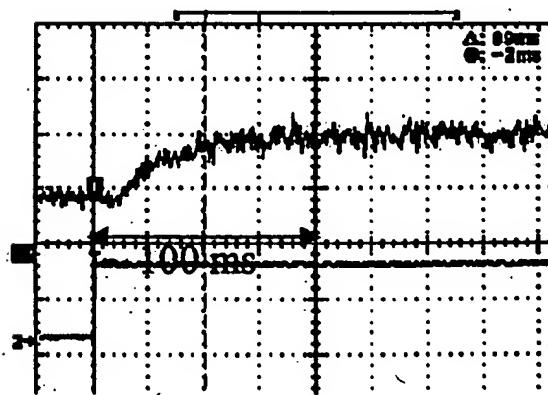


FIG. 71F

1520
↘

1522

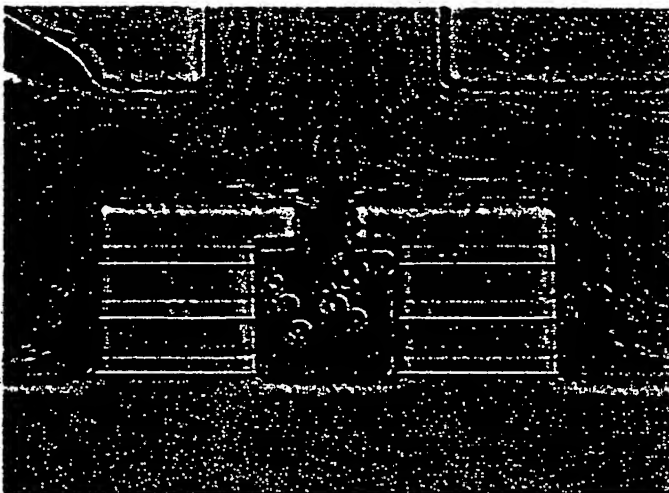
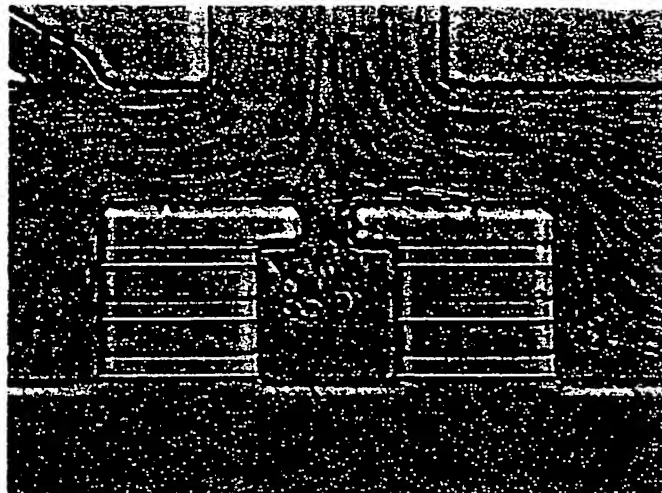


FIG. 72

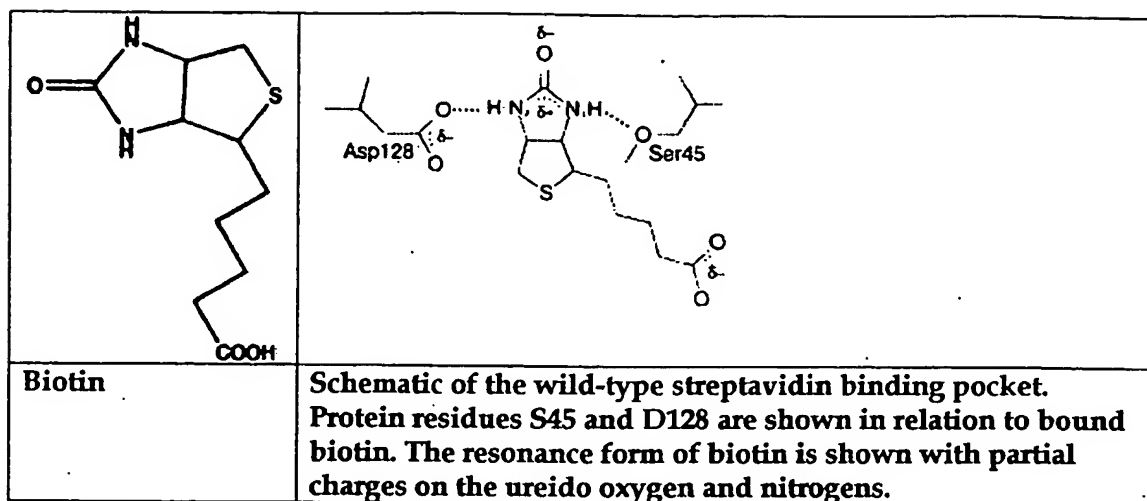


FIG. 73

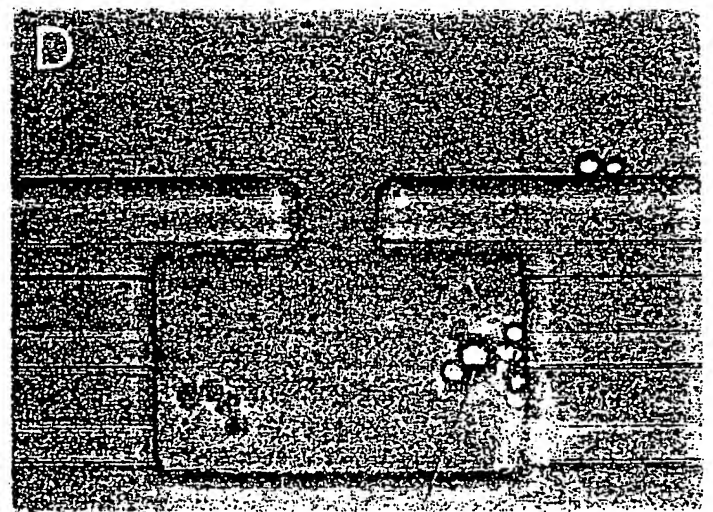
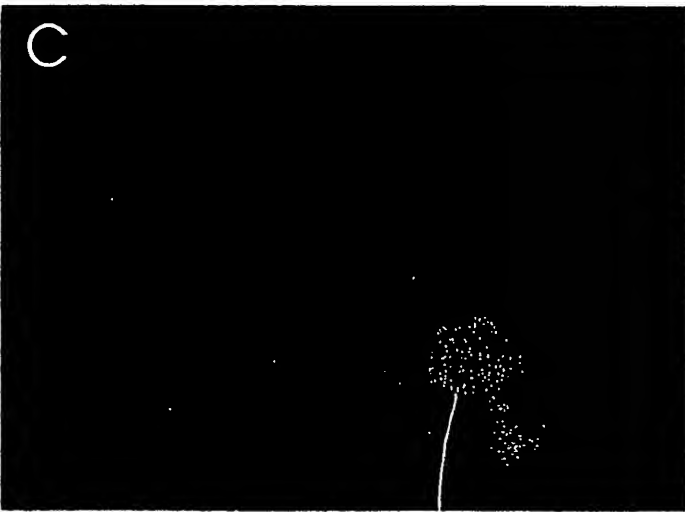
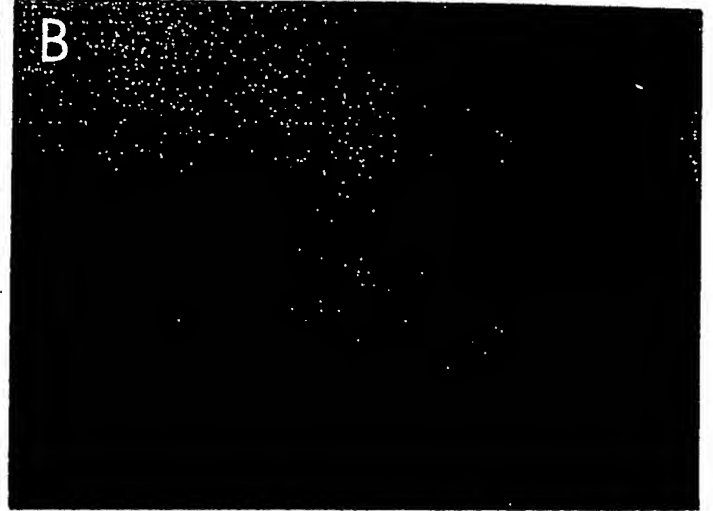
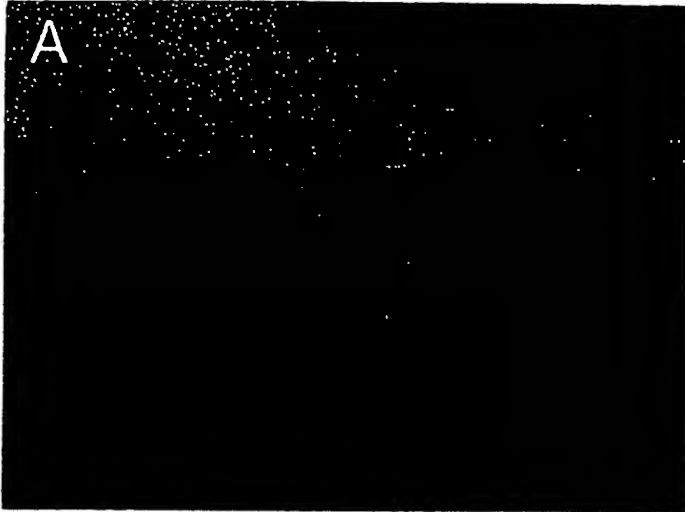
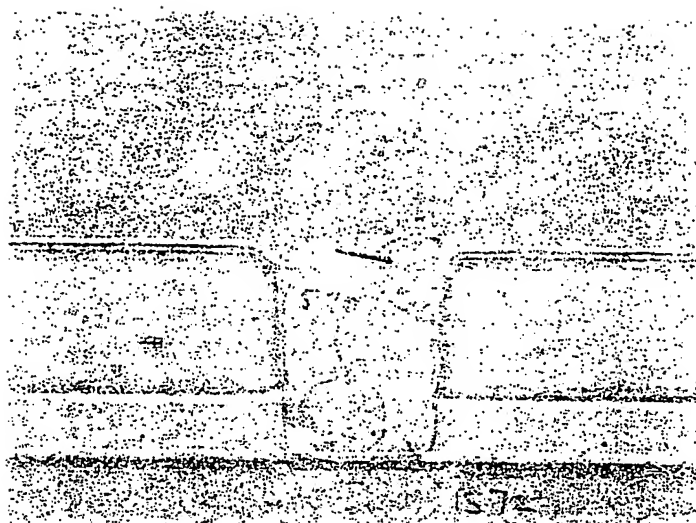
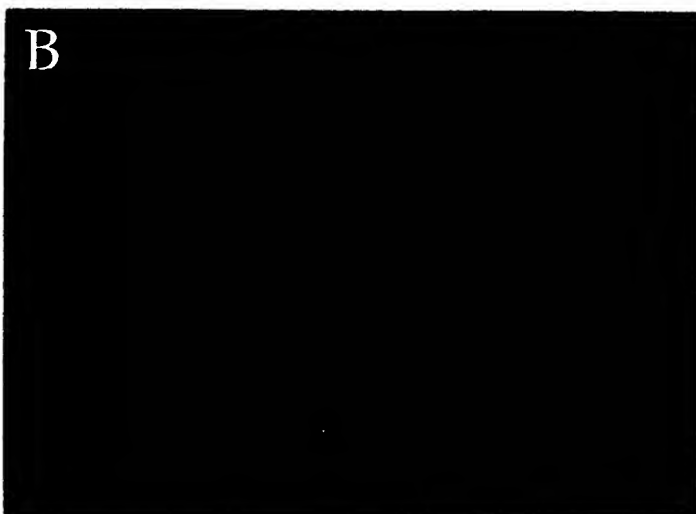


FIG. 74



B



C

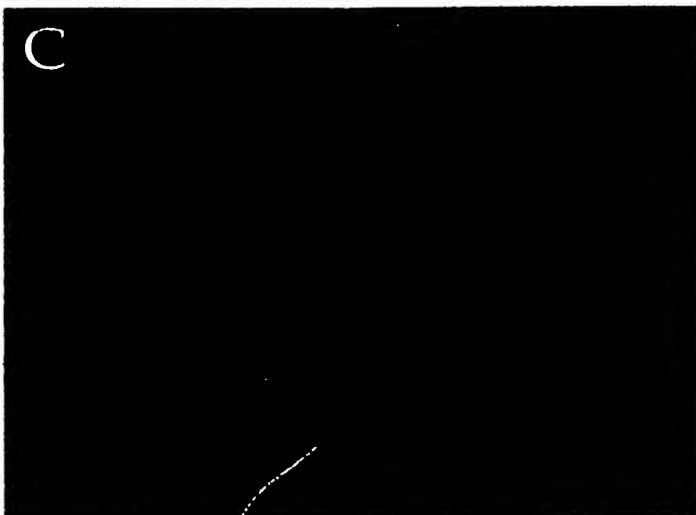


FIG. 75

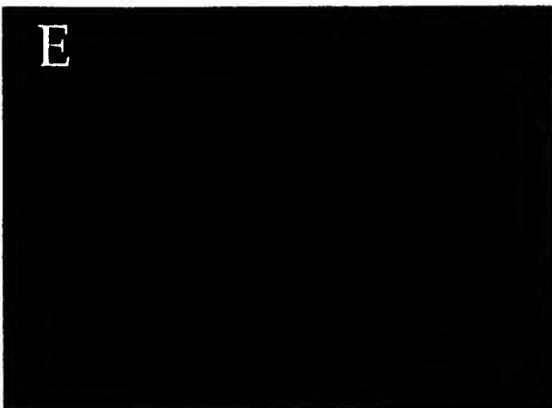
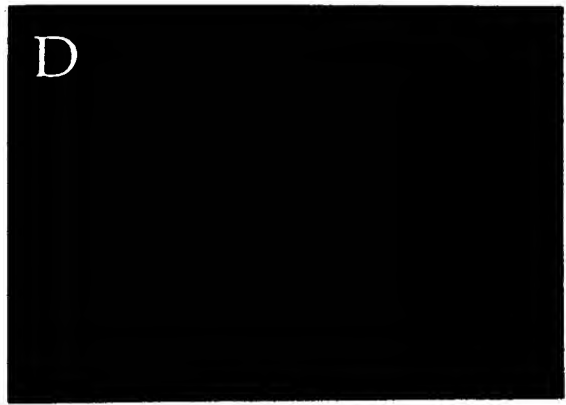
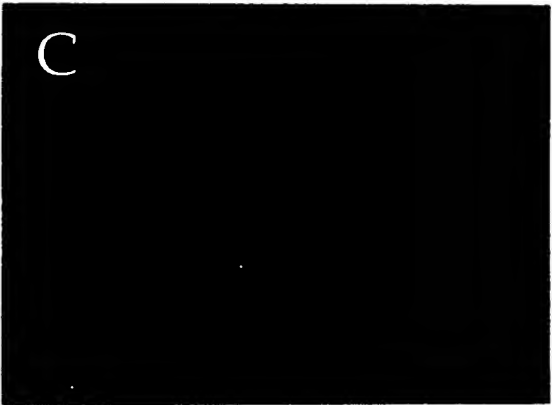
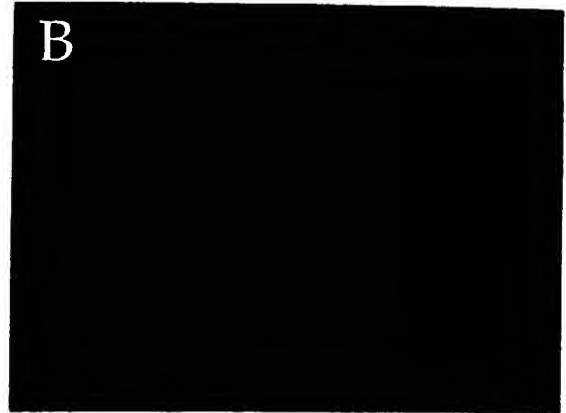
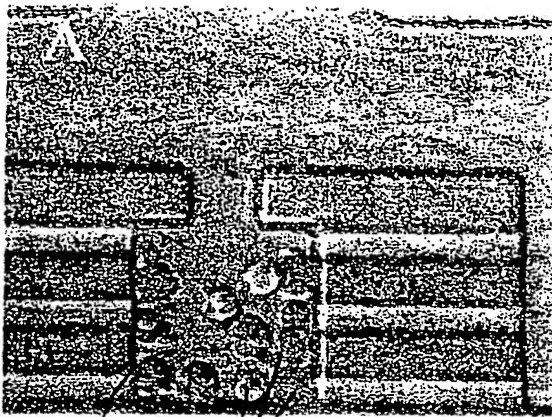


FIG. 76

Structure for T-3163

N-(3-triethylammoniumpropyl)-4-(4-(dibutylamino)styryl)pyridinium dibromide

(FM® 1-43)

Molecular Formula: C₃₀H₄₉Br₂N₃

Molecular Weight: 611.55

CAS Number/Name: 149838-22-2 / Pyridinium, 4-[2-[4-(dibutylamino)phenyl]ethenyl]-1-[3-(triethylammonio)propyl]-, dibromide

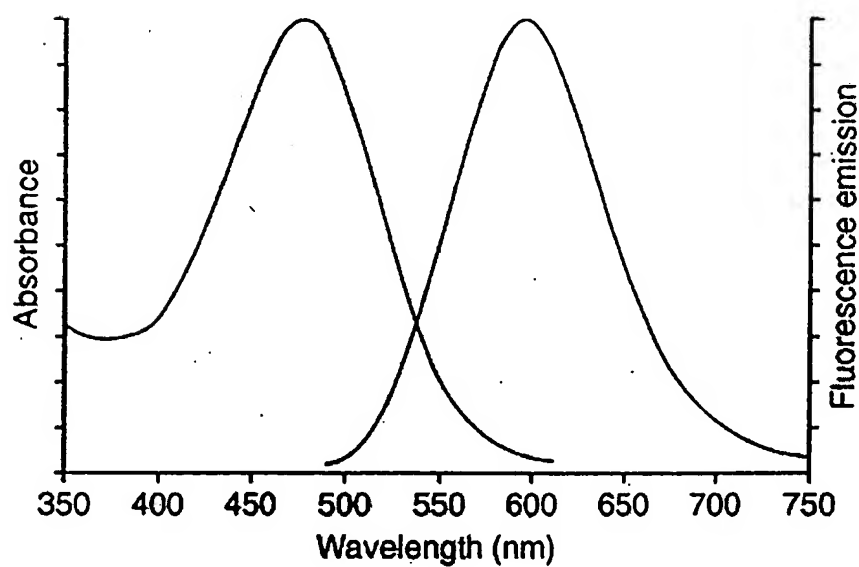
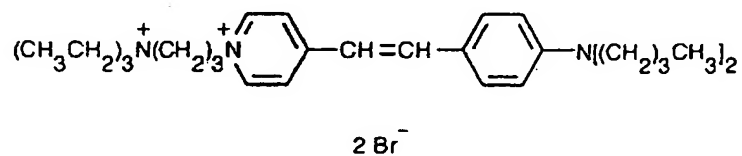


FIG. 77

Structure for T-3166

N-(3-triethylammoniumpropyl)-4-(6-(4-

(diethylamino)phenyl)hexatrienyl)pyridinium dibromide (FM® 4-64)

Molecular Formula: $C_{30}H_{45}Br_2N_3$

Molecular Weight: 607.51

CAS Number/Name: 162112-35-8 / Pyridinium, 4-[6-[4-(diethylamino)phenyl]-1,3,5-hexatrienyl]-1-[3-(triethylammonio)propyl]-, dibromide

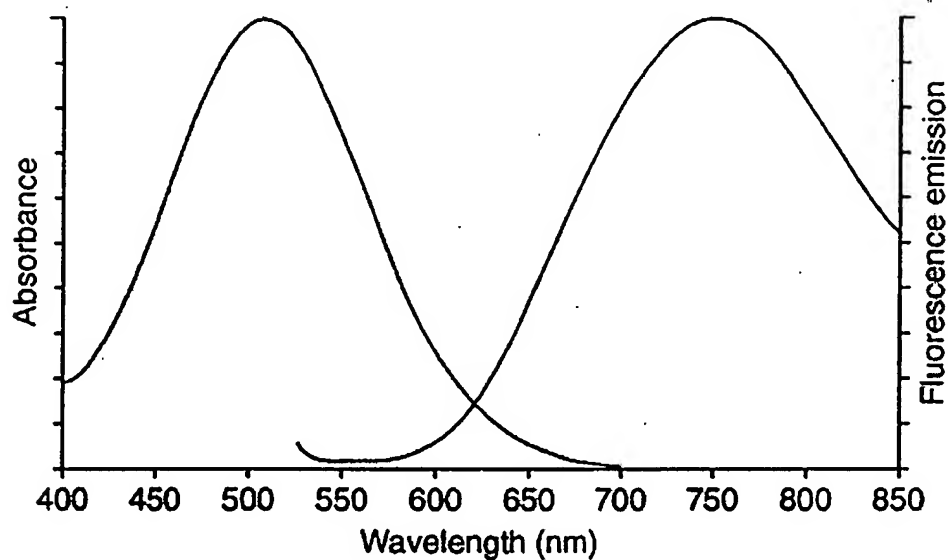
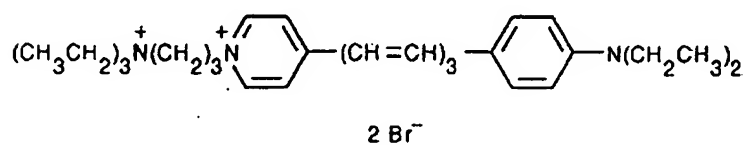


FIG. 78

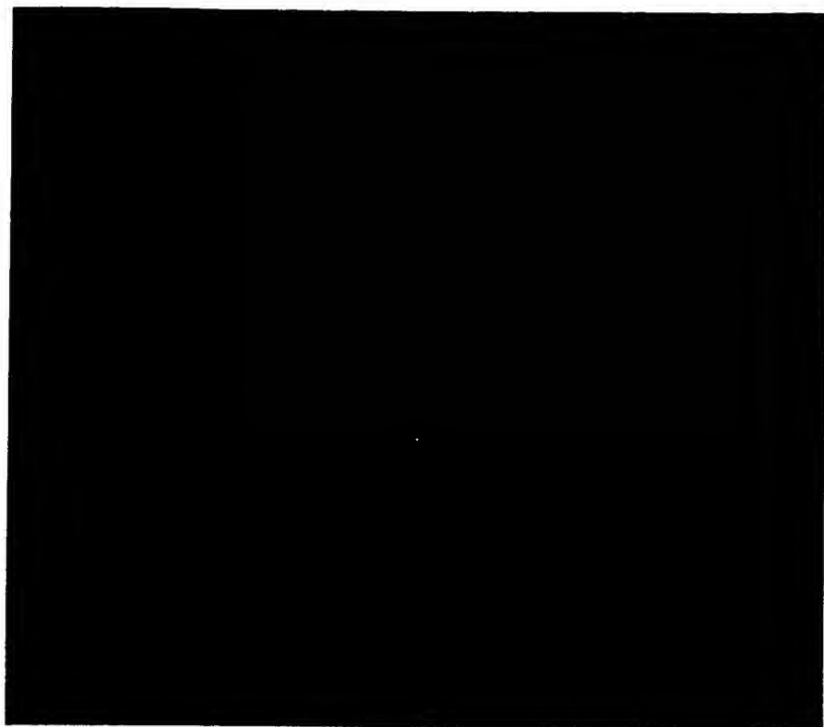


FIG. 79

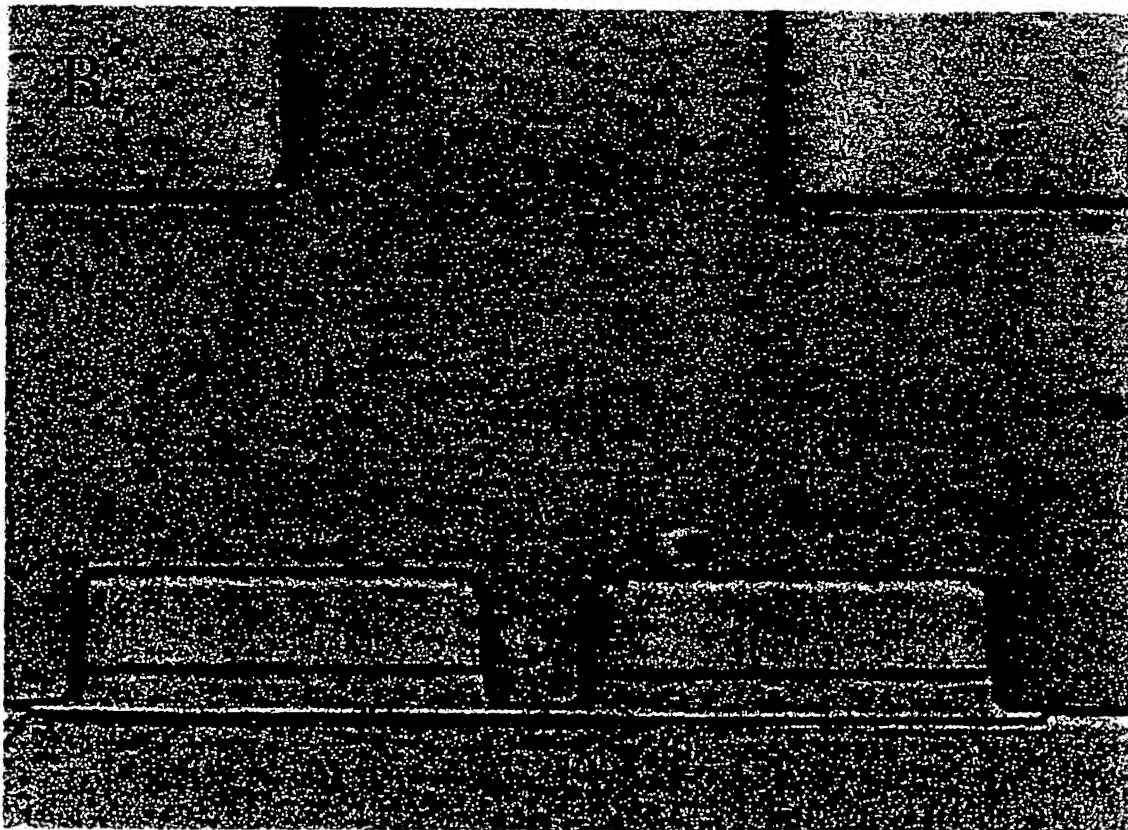
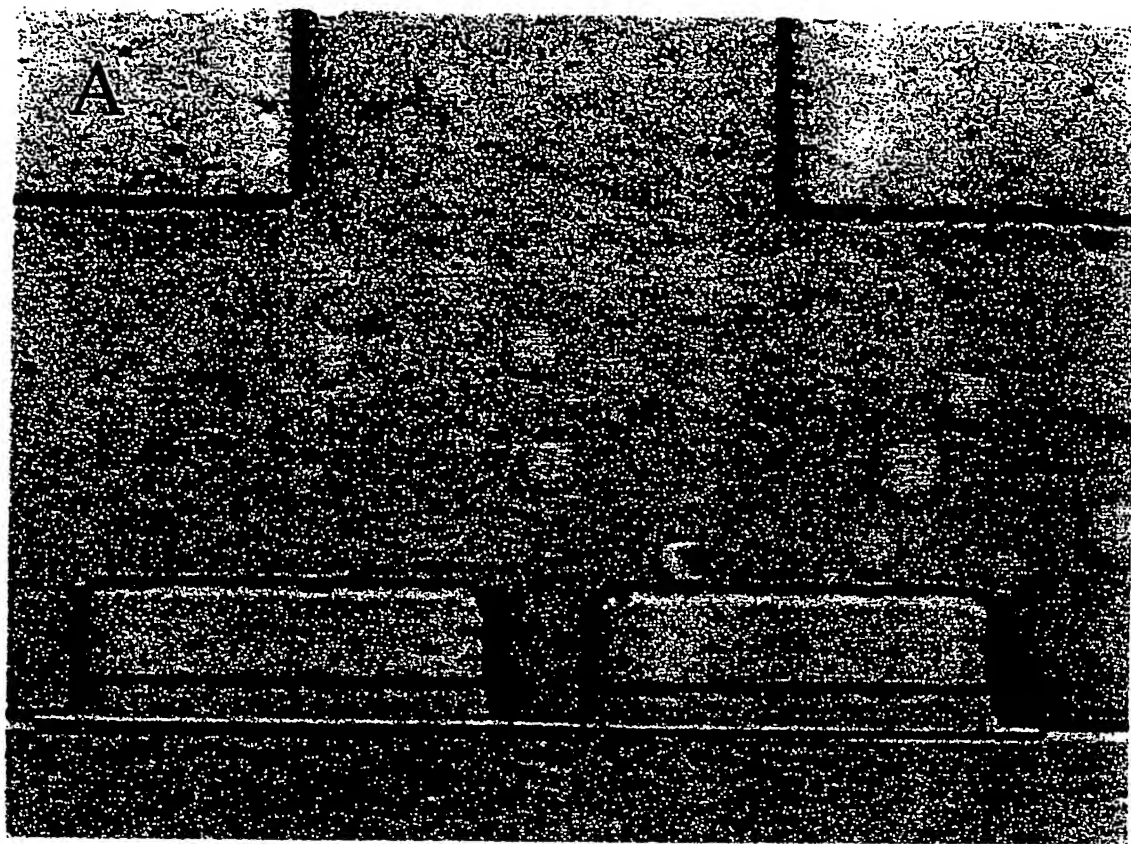


FIG. 80

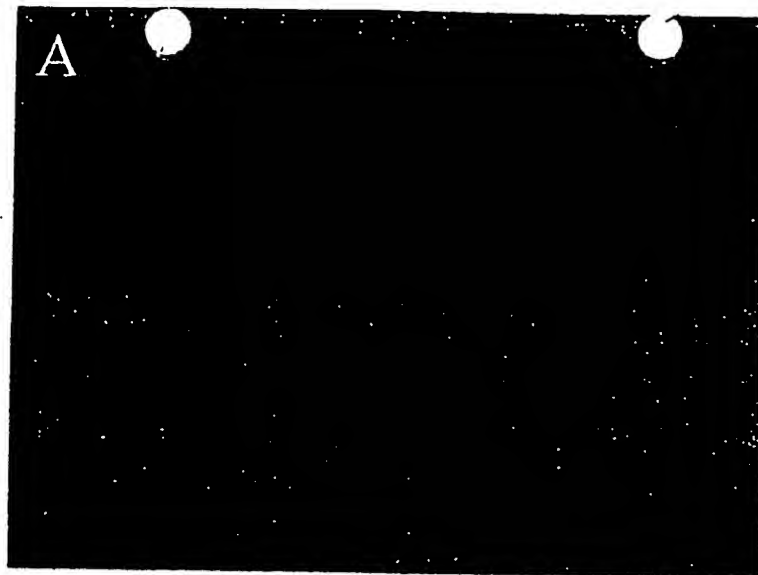


FIG. 81

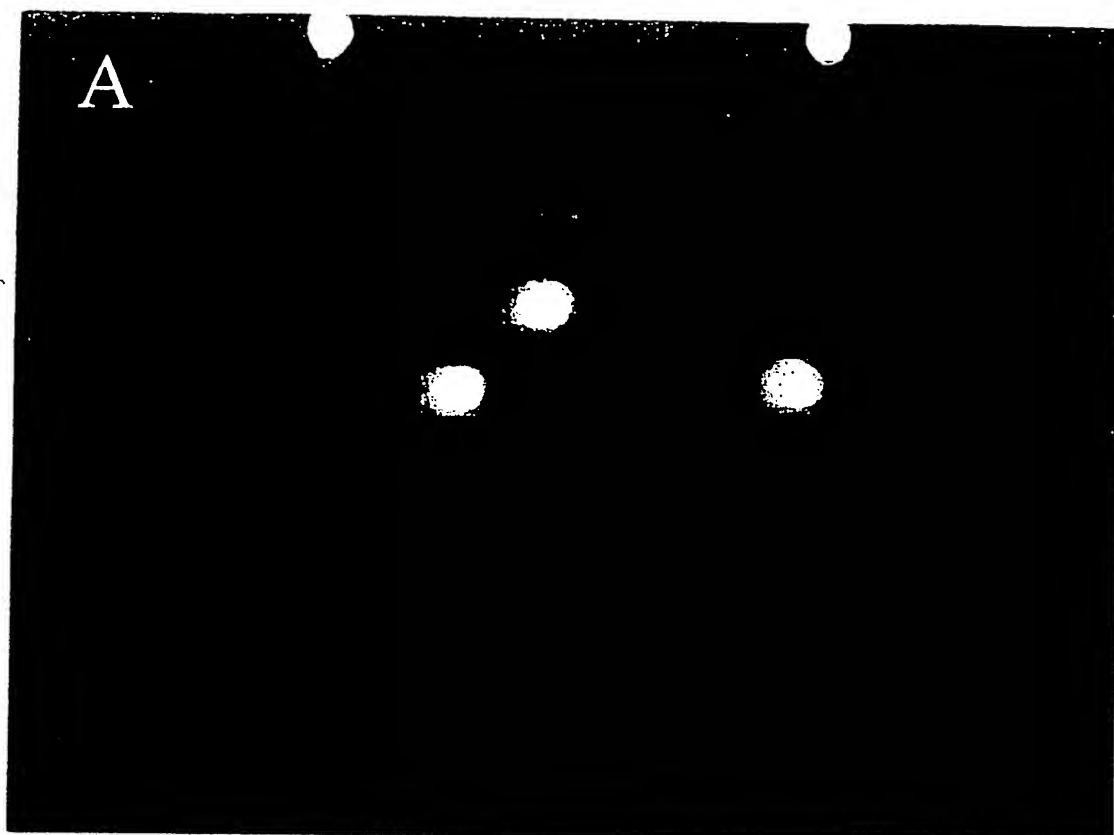


FIG. 82

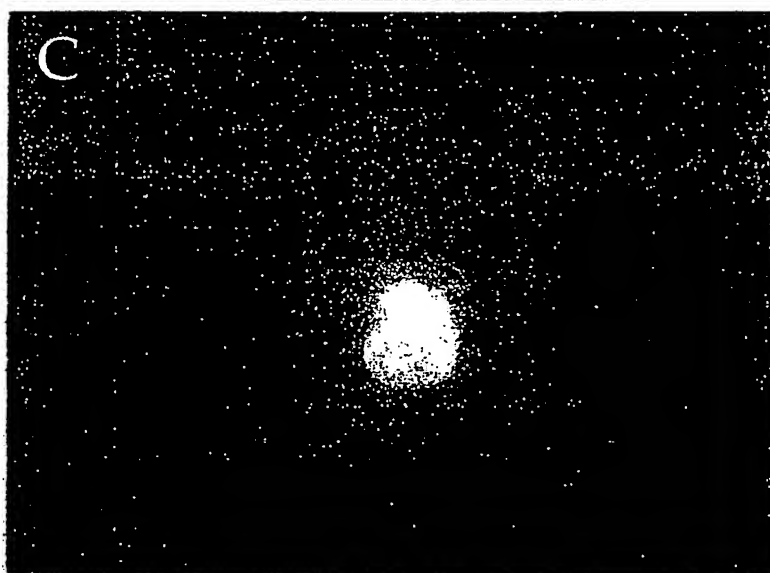
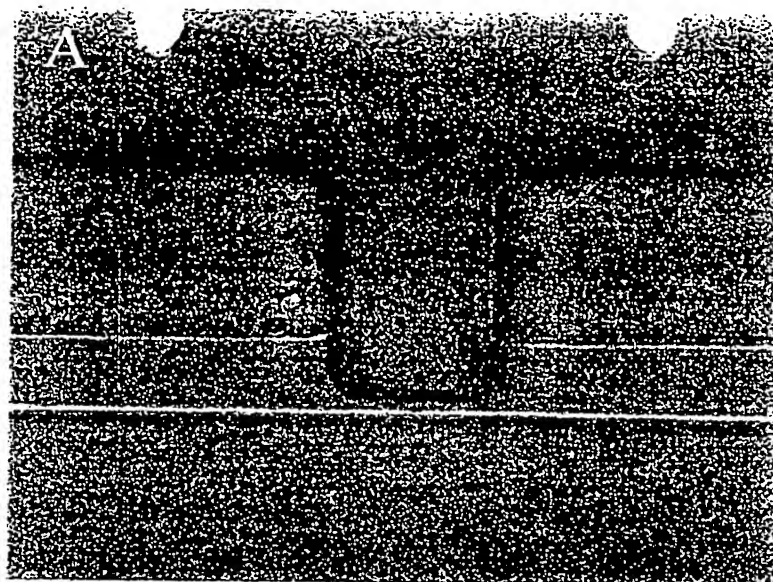
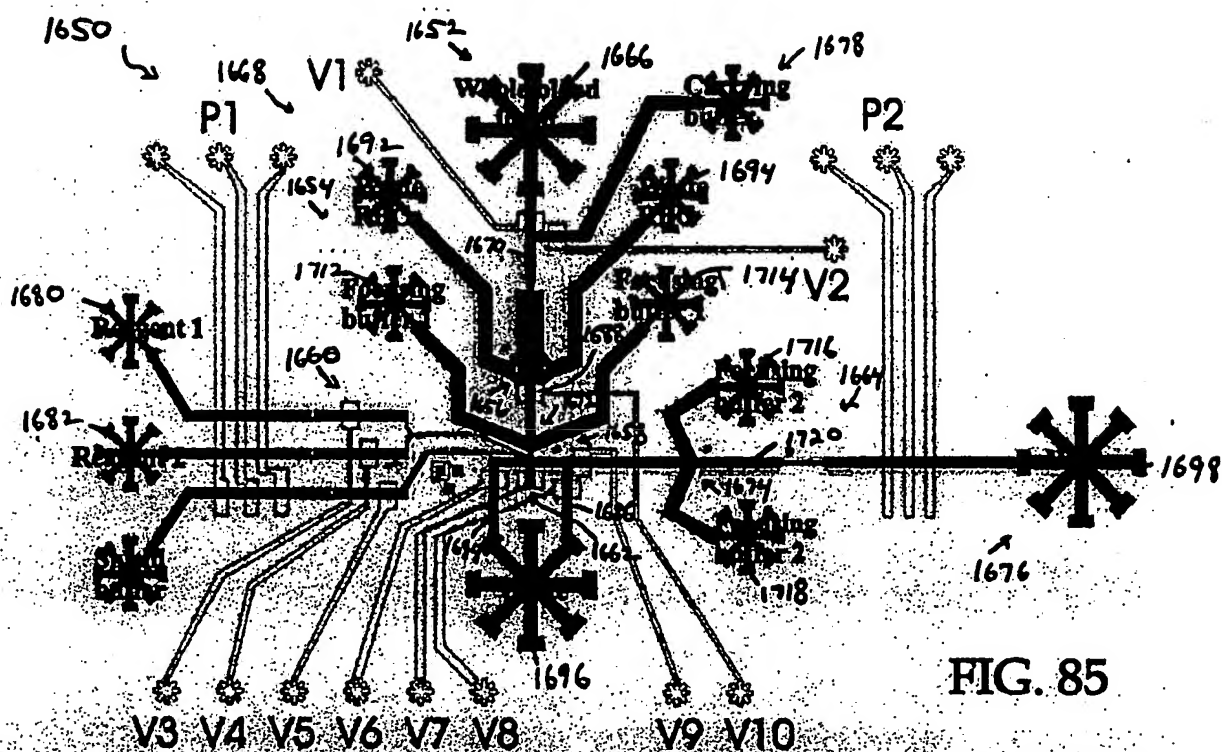
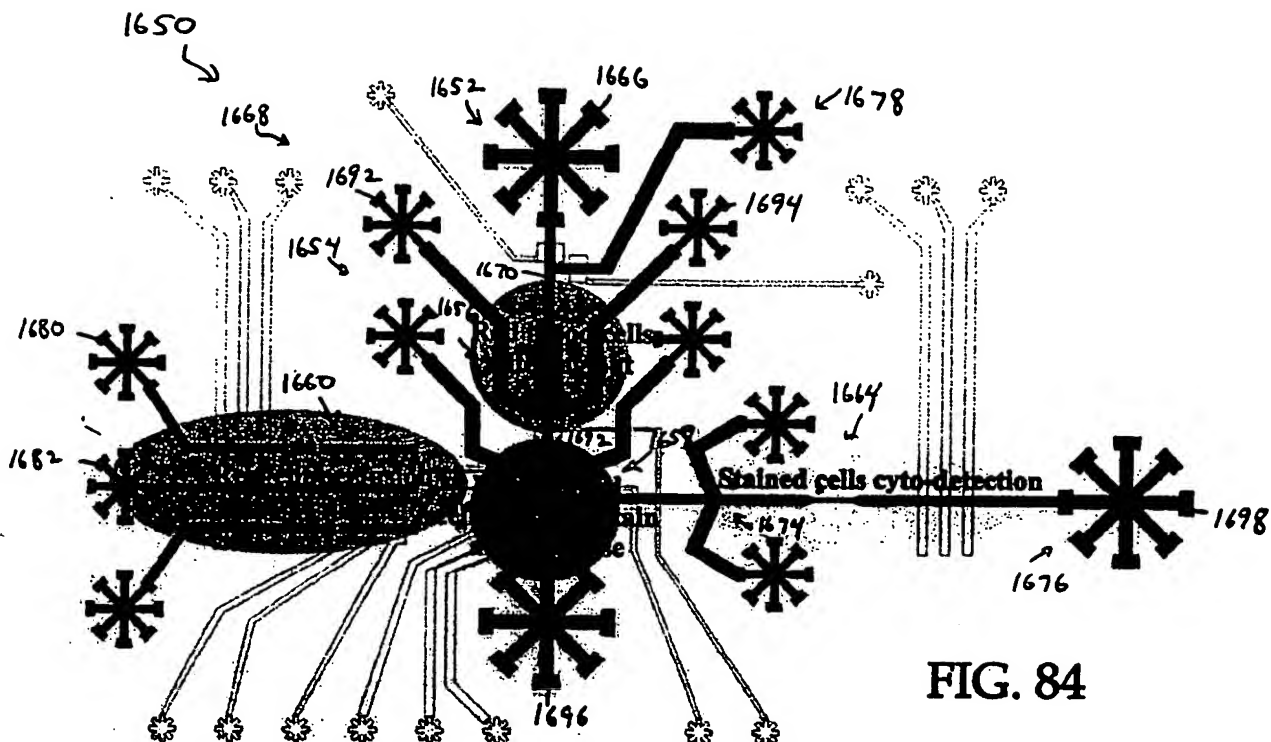


FIG. 83



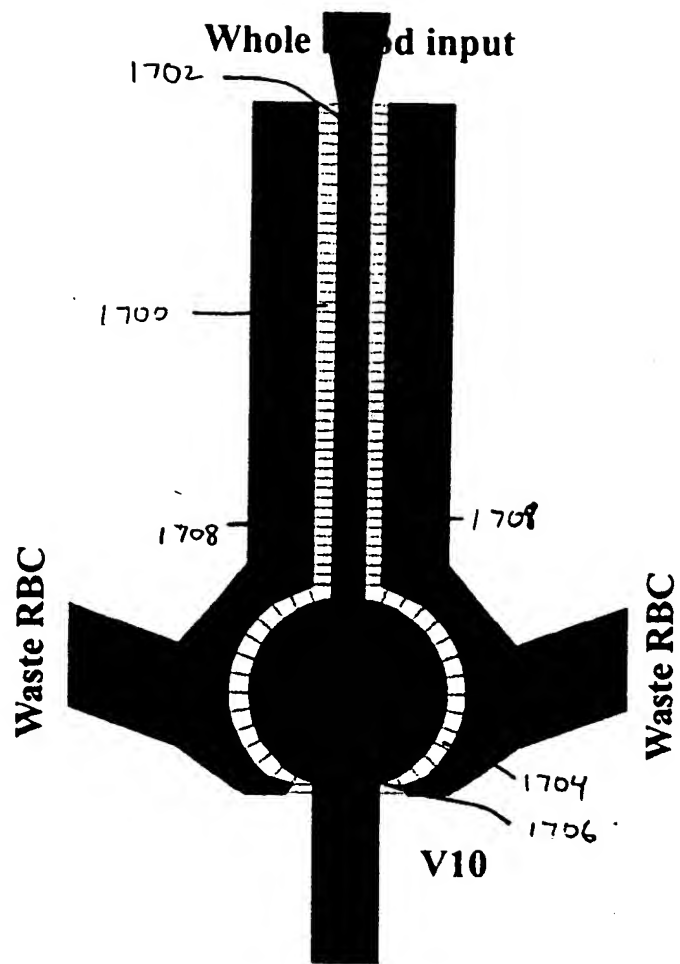


FIG. 86

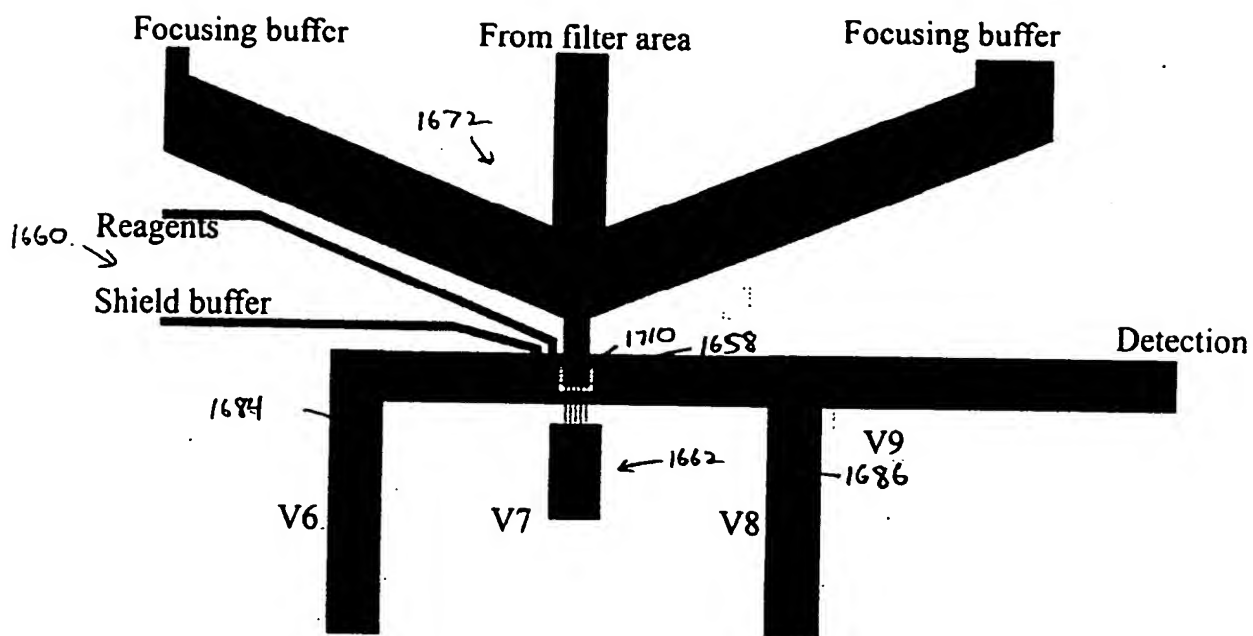


FIG. 87

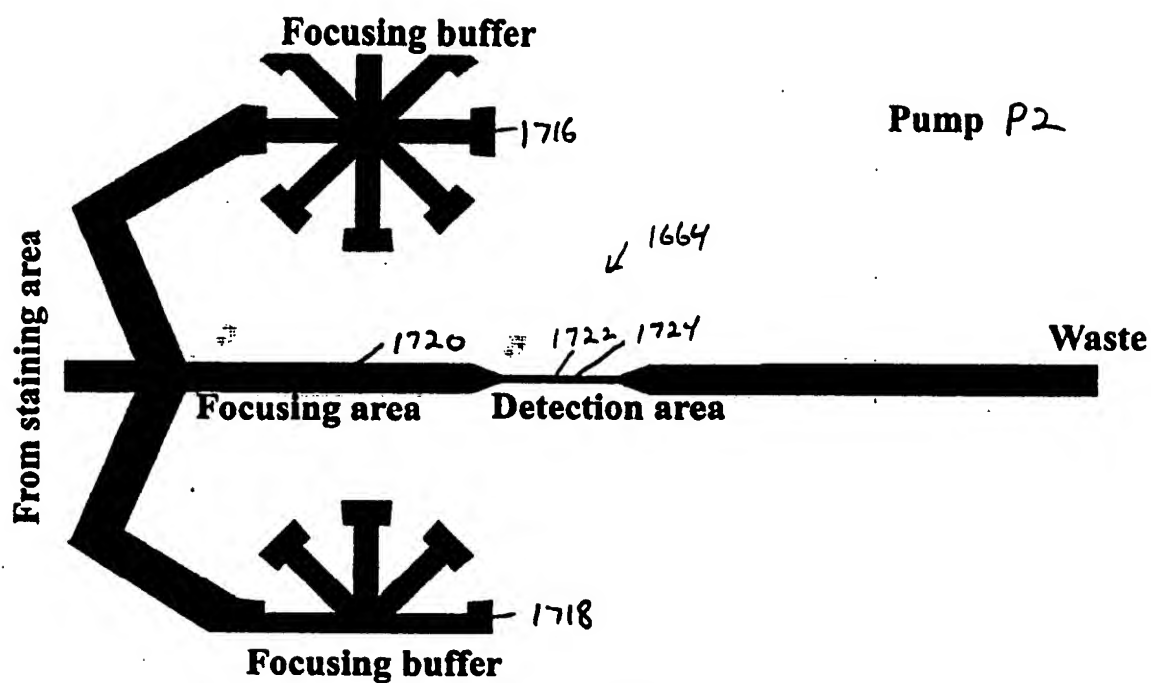


FIG. 88

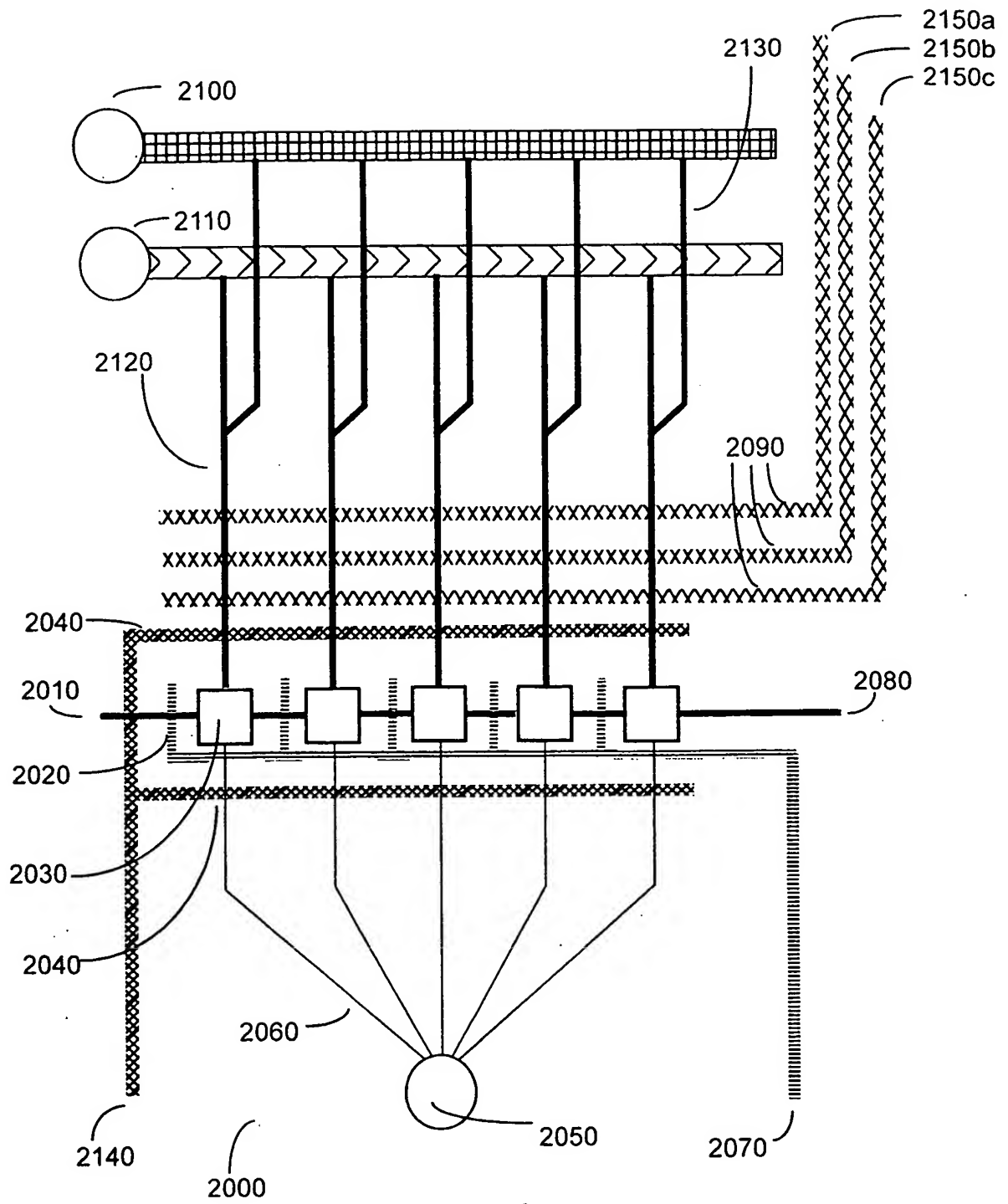


Fig. 89

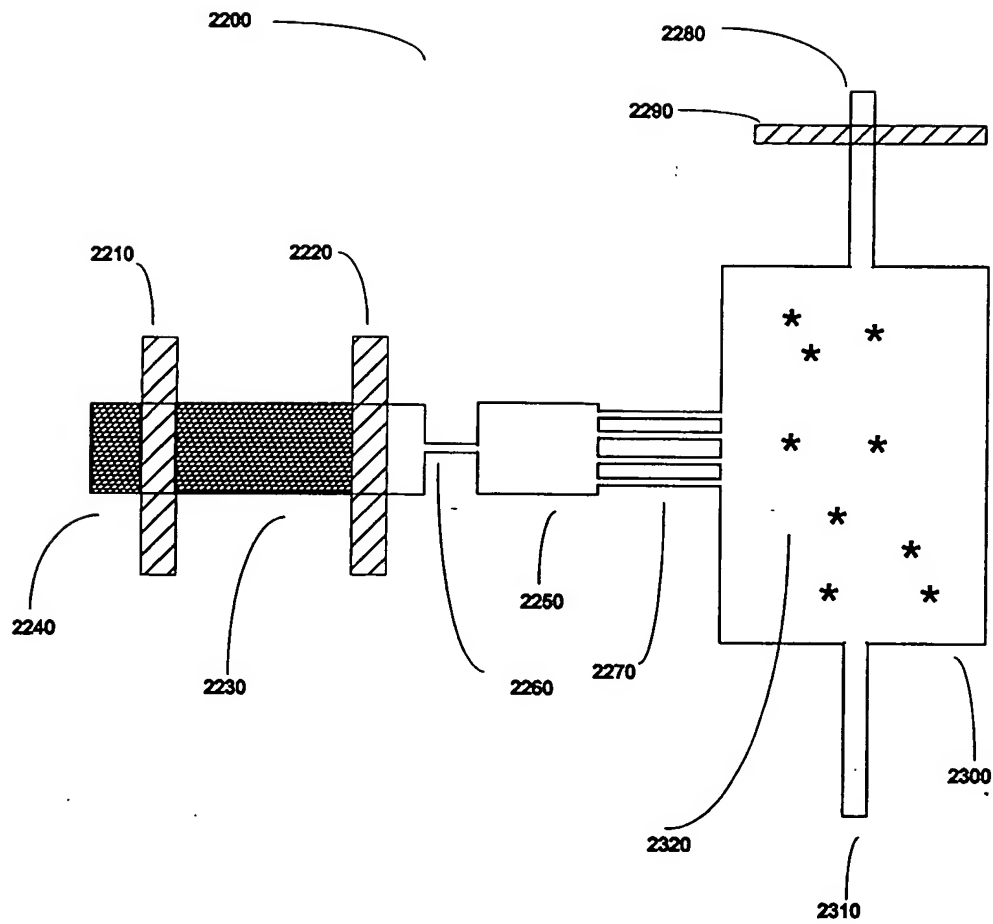
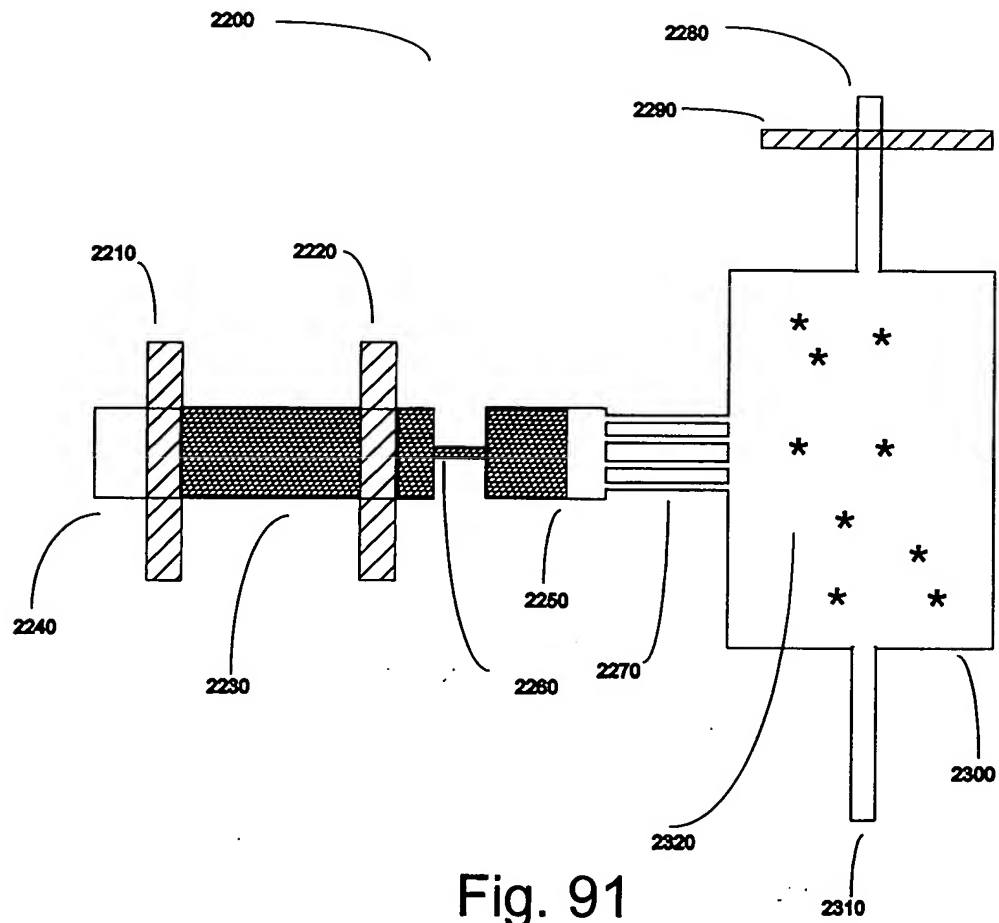


Fig. 90



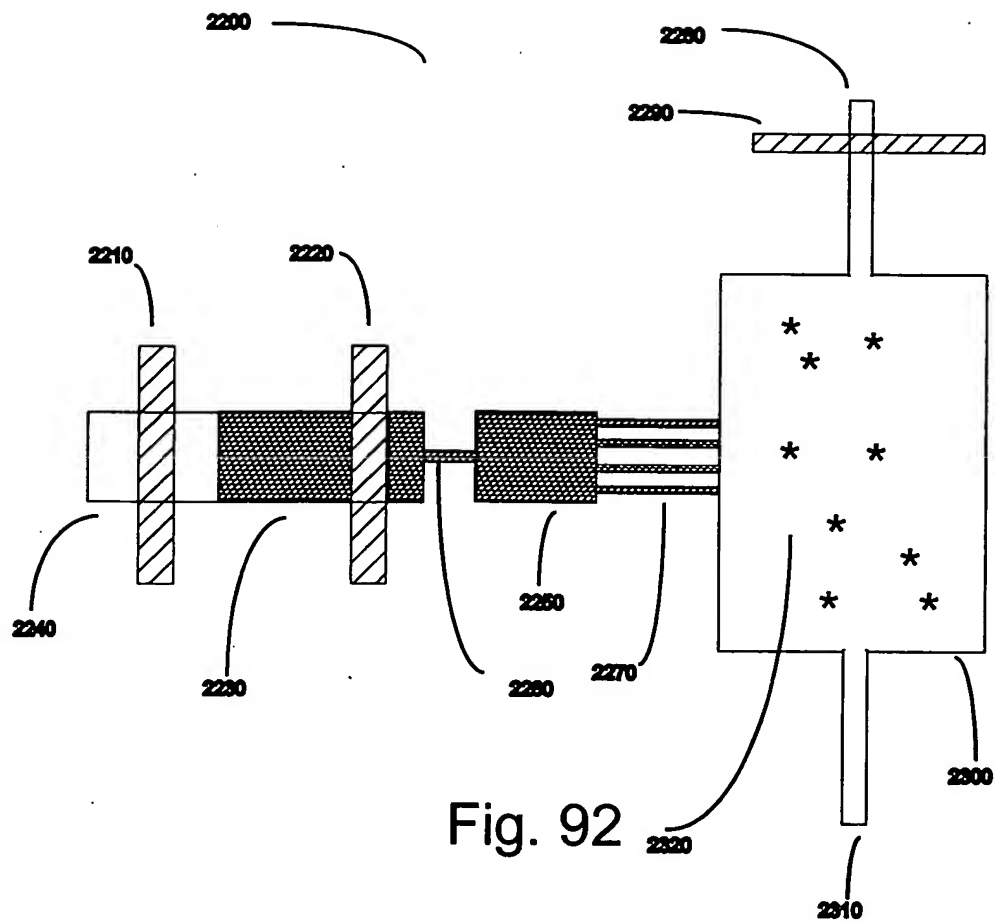


Fig. 92

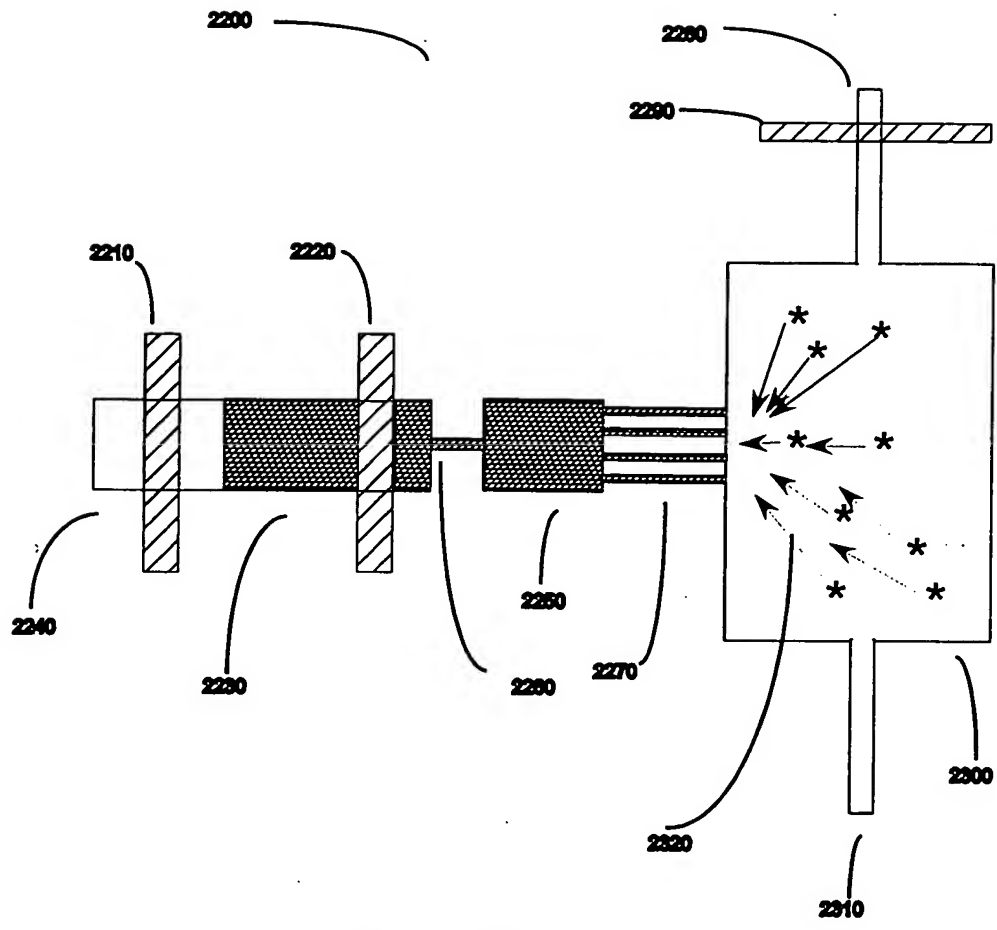


Fig. 93

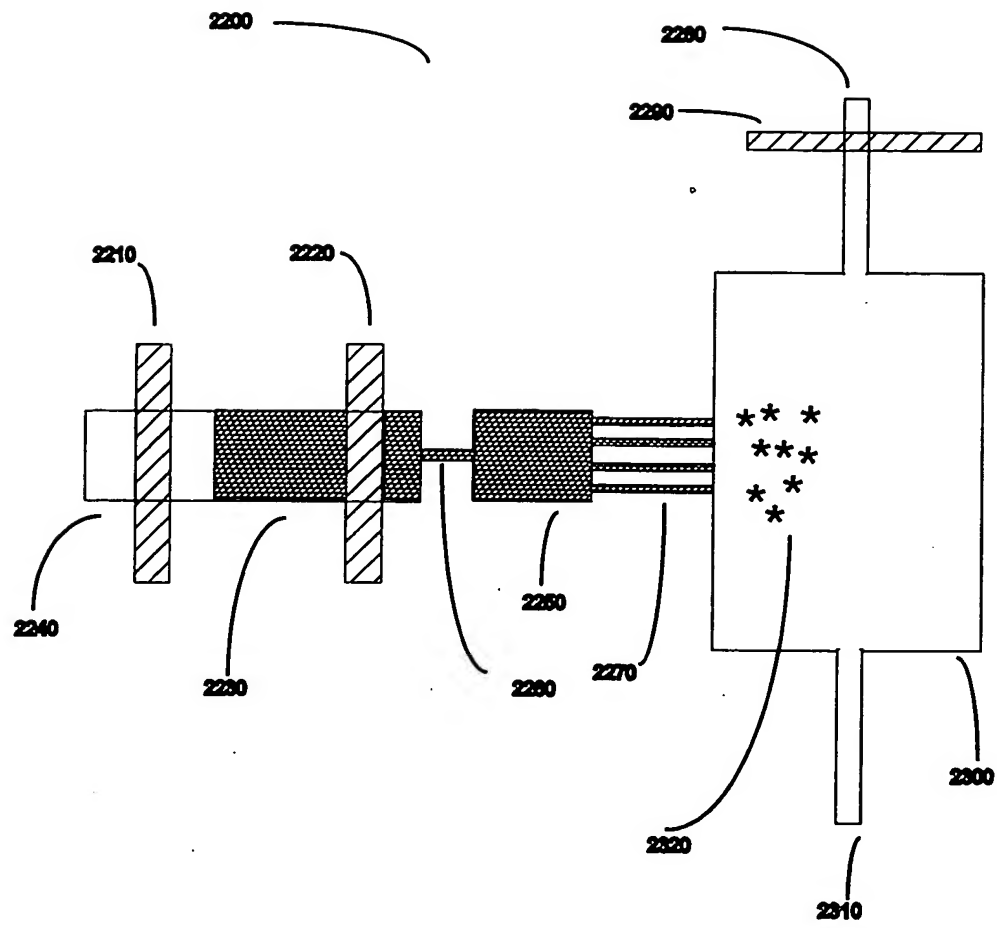


Fig. 94

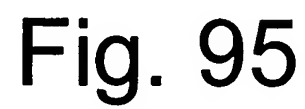


Fig. 95